BASF CORPORATION
50 CENTRAL AVENUE
KEARNY, HUDSON COUNTY
EPA ID# NJD046941430

GENERAL INFORMATION:
The BASF Corporation is located at 50 Central Avenue in Kearny, Hudson County. This twenty-five (25) acre industrial chemical manufacturing facility is operated by a staff of 150 people. Other properties within a one (1) mile radius of the BASF Kearny Works are extensively developed for transporation, industrial, and commercial uses. The estimated residential population living within four miles of the plant is certainly in excess of five hundred thousand people. The Kearny Works was originally constructed for the American Cork Company and BASF purchased the facility in 1964. Historically "cork and dye stuffs" were manufactured at this facility.

SITE OPERATIONS OF CONCERN:
BASF now operates a twenty-four (24) hour a day production process, reacting orthoxylene with oxygen at high temperatures to form phthalic acid anhydrides and esters. Raw materials and finished products are shipped in bulk quantities only, by rail car or tank truck, and stored in thirty-one (31) above ground tanks with a total combined volume of 3.2 million gallons.

The BASF Kearny Works generates a number of aqueous and organic wastes. Phthalic acid anhydride (PAA) distillates, dioctyl phthalate (DOP) lights, and mixed organic compound (MX organics) wastes are inicinerated. Oil sludge, spent vanadium pentoxide catalyst, and PA ester spill residues are stored in 55 gallon drums and shipped off-site for disposal. Process wastewater, stormwater and spills from the process area, transfer areas, and the parking lot are directed to the on-site waste water treatment plant. After treatment, the effluent (250,000 gallons/day on average), is discharged to the town of Kearny, POTW and BASF has applied to the DEP DWR for a Significant Industrial Users (SIU) permit in conjunction with this activity. The on-site water treatment plant is also regulated by a Discharge Prevention Containment and Countermeasures (DPCC) and Discharge Cleanup and Removal (DCR) permits. During a storm event the surge volume of water to the treatment plant maybe in excess of capacity and the overflow is then discharged to Newark Bay via a NJPDES regulated outfall. All NJPDES regulated activities at the Kearny Works are assigned the permit # NJ0001112.

A RCRA Facility Assesment completed in 1989 identified five (5) solid waste management units at the BASF Kearny Works. Three (3) units are included in the RCRA Part B permit application: the container storage area, the PAA incinerator, and the Phthalate Water Waste (PWW) incinerator. The rail car and tank truck transfer areas comprise the fourth unit, and the waste water treatment plant is the fifth. BASF submitted the RCRA part B application in August 1985 and it is currently under review by the Bureau of Hazardous Waste Engineering.

GROUND WATER ROUTE:
The BASF facility is situated directly upon an amorphous fill of sand and demolition debris on the peninsula formed at the confluence of the Hackensack and Passaic Rivers. Beneath this fill is a thick and continuous glacial drift cover composed of silt, sand, and gravel above an

uncharacterized bedrock formation. Because of its close proximity to the Newark Bay the depth to the water table beneath the facility is influenced by the tides. There are no water production or monitoring wells installed at the Kearny Works and consequently BASF purchases all of its industrial and potable water (400,000 gallons/day) from the North Jersey Water Supply Commission.

A computer generated water withdrawal map indicates that ground water, within a five mile radius of the site, is predominantly used for industrial purposes. Potable water for nearby residential and industrial communities is purchased from numerous water companys.

SURFACE WATER ROUTE:
Discharge to the surface waters of Newark Bay occurs at BASF only during extreme storm events. Newark Bay has a degraded water quality such that during the summer months it is unsuitable for aquatic life due to the low dissolved oxgen level. Records on file with the DWR Metro Enforement BFO indicate that such discharges have often exceeded the NJPDES permit parameters for BOD, TOC, PHC, and pH. Additionally on August 30, 1985 diethyl hexyl phthalate and dibutyl phthalate were detected at 32 mg/l and 33 mg/l respectively, 100 times the permitted values. Some phthalic acids are toxic to aquatic organisms at concentrations on this order of magnitude and dibutyl phthalate is known to produce teratogenic effects. Consequently, there is a potential for long range sublethal and chronic repercussions on the marine resources of Newark Bay through bioaccumulation.

AIR ROUTE:
The PAA incinerator is a direct fired liquid injection unit, constructed in 1971 for the disposal of plant specific wastes, namely PAA distillation residues, DOP lights, and MX organics. Approximately 1,780 tons of waste materials are disposed of in this unit each year. The Hudson Regional Health Commission determined that BASF was operating the PAA incinerator in violation of the Air Pollution Control Code by releasing black smoke to the atmosphere on July 3, 1986. On March 6, 1987 a RCRA walk through site inspection was performed and black smoke was observed billowing from the PAA incinerator stack. This release was relatively brief and a company official explained that a power failure was the cause. Releases to the atmosphere from this unit are regulated by a NJDEP air permit #004457.

The phthalate water waste (PWW) incinerator is a down fired combustion chamber system which was originally installed to destroy phthalate water waste. The specific wastes this unit was constructed to dispose of are no longer generated at the Kearny Works. BASF had elected to include this unit in the RCRA part B permit application in order to maintain the option to resume operation at some future date as a back up treatment of the three wastes currently directed to the PAA incinerator unit. However, as the PWW incinerator was never utilized except for a few months intermittantly in 1981, BASF made the decision to dismantle the unit and remove it from the facility. This action was completed in late 1987.

Releases to the atmosphere from the PAA incinerator have recently been observed and there is a potential for similar incidents to occur through the normal operation of the facility.

SOIL ROUTE:
The rail car and tank truck transfer areas are equipped with sewer drains to convey spills and storm water to the on site waste water treatment plant. During the RCRA walk through site inspection on March 6, 1987 soils in the vicinity of the transfer areas appeared darkly stained. The asphalt or concrete pads that direct spills to the sewer drain system are not completely effective at all transfer stations. There is a potential for spills which may occur to penetrate the surface soils, and thereby contact the ground water.

ADDITIONAL CONSIDERATIONS:
The darkly stained soil in the vicinity of the rail car and tank truck transfer areas indicates that spill containment is not completely effective at all of the transfer sites. Potentially the sandy substrate at the Kearny Works could transmit contaminants to the water table and the nearby bay on a daily basis.

The periodic discharge of untreated storm water runoff from the BASF organic chemical plant in Kearny may have long term repercussions on the marine resources of Newark Bay by aggravating the already low oxygen concentration of the water and through the bioaccumulation of toxic compounds.

ENFORCEMENT ACTIONS:
The USEPA in September 1982 issued an Order to Badische Corporation concerning the repeated violations of its NJPDES DSW permit limitations from March 1980 until May 1982.

PRIORITY DESIGNATION:
Due to the potential for soil contamination and the lack of compliance with the NJPDES Discharge to Surface Water permit, this facility is assigned a medium priority for assessment. Remedial activities at the facility will be regulated through the RCRA Corrective Action Strategy and will be conducted in conjunction with the issuance of the facility's hazardous waste operating permit by USEPA and NJDEP.

RECOMMENDATIONS:
The RCRA Facility Assessment which was completed in 1987 made the following recommendations:

1. The NJPDES discharge to surface of water permit parameters and/or the BASF discharge procedure should be re-evaluated to accurately reflect actual field conditions.

2. A limited remedial investigation should be implemented to delineate the vertical migration of contaminants from the rail car and tank truck transfer areas and determine the impact on the ground water beneath the Kearny works.

Submitted by:

Kenneth Conrow, HSMS IV
Bureau of Planning and Assessment

Preliminary Assessment

BASF Corporation
50 Central Avenue
Kearny, Hudson County, New Jersey
EPA ID NJD046941530

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D046941530

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
BASF Corporation	50 Central Avenue

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Kearny	NJ	07032	Hudson	09	

09 COORDINATES LATITUDE	LONGITUDE	
40 43 14.N	74 06 53 W.	Block 288 Lot 1, 2, 3 & R

10 DIRECTIONS TO SITE (Starting from nearest public road)

Take the New Jersey Turnpike north to exit 15E, then the Lincoln Highway east to Central Avenue and turn right. Proceed to #50, which is on the right at the end of the road.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
BASF Aktiengesellscaft	

03 CITY	04 STATE
6700 Ludwigshafen am Rhein	Federal Republic of Germany

05 OPERATOR (If known and different from owner)	06 STREET (Business, mailing, residential)
BASF Corporation	100 Cherry Hill Road

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
Parsippany	NJ	07054	(201) 397-2700

13 TYPE OF OWNERSHIP (Check one)

☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL

☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☒ A. RCRA 3001 DATE RECEIVED: __/__/__ (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: __/__/__ (MONTH DAY YEAR) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION

☒ YES DATE __/__/__ (MONTH DAY YEAR)
☐ NO

BY (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR ☒ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)

CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)	03 YEARS OF OPERATION
☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN	1964 (BEGINNING YEAR) Present (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Adipitic Acid, Butanol, Decanol, Methanol, Orthoxylene, Phthalates, Ammonia, Trimellitates.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

There is a potential for a release to the air, water and soil of the State through normal operation of the facility.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)

☐ A. HIGH (Inspection required promptly) ☒ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed; complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
Ali Chaudry	NJDEP/DHWM/BHWE	(609) 633-2970

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Kenneth Conrow, HSMS IV	NJDEP	DHWM/BPA	(609) 984-3018	05 / 11 / 88 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D046941530

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [ ] A. SOLID
- [ ] B. POWDER, FINES
- [ ] C. SLUDGE
- [ ] D. OTHER (Specify)
- [ ] E. SLURRY
- [x] F. LIQUID
- [ ] G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS: Unknown
CUBIC YARDS: Unknown
NO. OF DRUMS: Unknown

03 WASTE CHARACTERISTICS (Check all that apply)

- [x] A. TOXIC
- [ ] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [ ] D. PERSISTENT
- [x] E. SOLUBLE
- [ ] F. INFECTIOUS
- [ ] G. FLAMMABLE
- [ ] H. IGNITABLE
- [ ] I. HIGHLY VOLATILE
- [ ] J. EXPLOSIVE
- [ ] K. REACTIVE
- [ ] L. INCOMPATIBLE
- [ ] M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS	Unknown	Gallons	
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	Unknown		
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OCC	Diethyl Hexyl Phthalate	117-81-7	Effluent	32	ppm
OCC	DiButyl Phthalate	84-74-2	Samples 8/30/85	33	ppm

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

Attachment E Violations, NJPDES Permit No. NJ0001112

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D046941530

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION — 02 [ ] OBSERVED (DATE: _____) — [X] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Spills occurring at the truck and rail car transfer stations may penetrate the sandy substrate and contact groundwater which is present at approximately two feet.

Attachment H

01 [X] B. SURFACE WATER CONTAMINATION — 02 [X] OBSERVED (DATE: 8/23/85) — [ ] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Discharge stormwater was in excess of permitted values for BOD, DEHP, and DBP. Discharges often exceed perimeters for BOD, TOC, PHC, and pH.

Attachment E

01 [X] C. CONTAMINATION OF AIR — 02 [ ] OBSERVED (DATE: ___ ___ ___) — [X] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

An investigation by the Hudson Regional Health Commission determined that black smoke was emitted to the atmosphere from the PAA incinerator unit on July 3, 1986. Particles were observed to be emitted on March 3, 1977. Attachment C

01 [X] D. FIRE EXPLOSIVE CONDITIONS — 02 [ ] OBSERVED (DATE: _____) — [X] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

The potential exists due to the presence of flammable materials on site.

Attachment B, D

01 [X] E. DIRECT CONTACT — 02 [ ] OBSERVED (DATE: _____) — [X] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

The potential exists for employees to come in direct contact with spilled materials observed throughout the plant.

Attachment H

01 [X] F. CONTAMINATION OF SOIL — 02 [ ] OBSERVED (DATE: 3/6/87) — [X] POTENTIAL — [ ] ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ (Acres) — 04 NARRATIVE DESCRIPTION

During the RCRA walk through inspection soils in the vicinity of the transfer areas appeared darkly stained.

Attachment H

01 [ ] G. DRINKING WATER CONTAMINATION — 02 [ ] OBSERVED (DATE: _____) — [ ] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

There are no municipal wells within five miles of the facility. Potable water is supplied from upstate reservoirs.

01 [X] H. WORKER EXPOSURE/INJURY — 02 [ ] OBSERVED (DATE: _____) — [X] POTENTIAL — [ ] ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

The potential exists due to the presence of stained soils in the vicinity of the rail car and the truck transfer areas.

Attachment H

01 [ ] I. POPULATION EXPOSURE INJURY — 02 [ ] OBSERVED (DATE: _____) — [ ] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

The facility is surrounded by a fence and is located in a non-residential area of Kearny.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D046941530

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

There has been no indication of damage to flora due to site operations.

01 ☒ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

The periodic discharge of untreated storm water runoff may have long term repercussions on the marine resources of Newark Bay by aggravating the already low oxygen concentrations and through bioaccumulation of toxic compounds. Attachment F

01 ☒ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

The periodic discharge of untreated storm water runoff may have long term repercussions on the marine resources of Newark Bay by aggravating the already low oxygen concentrations, and through bioaccumulatiions of toxic compounds. Attachment F

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills Runoff Standing liquids, Leaking drums) — 02 ☒ OBSERVED (DATE: 3/6/87) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Stained soils were observed in the vicinity of the rail car and truck transfer areas. Attachment H

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

There has been no indication of damage to off-site property.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

There has been no indication of contamination of sewers, storm drains, or WWTPs.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

There has been no indication of illegal or unauthorized dumping.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

Att. B - Part B Permit Application
Att. C - Releases to Air, March 3, 1977 and July 3, 1986
Att. D - Inventory of Units With Potential for VOS Emissions, April 1, 1981
Att. E - Violations, NJPDES Permit No. NJ0001112

EPA FORM 2070-13 (7-81)

Att. F - DFGW, BMF Review of Draft NJPDES Permit
Att. H - Memo Re: RCRA Walk Through Site Inspection, March 6, 1987

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D046941350

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☒ A. NPDES	NJ0001112			Discharge to Surface Water
☐ B. UIC				
☒ C. AIR	004457			
☒ D. RCRA				Part B in progress
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☒ C. DRUMS, ABOVE GROUND	220 drum capacity	
☒ D. TANK, ABOVE GROUND	3.2 million	gallons total
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☒ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify)

05 OTHER

- ☒ A. BUILDINGS ON SITE

06 AREA OF SITE

25 (Acres)

07 COMMENTS

The PAA incinerator is used for the disposal of plant specific wastes namely PAA Distillation residues, DOP lights, and MX organics. No free liquids are stored on the RCRA regulated container storage area whose construction is such that any release potential is remote. Raw materials and products are stored in 31 above ground tanks with a total combined volume of 3.2 million gallons.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☒ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

The darkly stained soil in the vicinity of the rail car and tank truck transfer areas indicates that spill containment is not completely effective at all of the transfer sites. No free liquids are stored at the RCRA regulated container storage area.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS

The facility is surrounded by a fence which is regulated by a security guard.

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

Att. B - Part B Permit Application
Att. G - NJPDES Permit No. NJ0001112
Att. H - Memo Re: RCRA Walk Through Site Inspection, March 6, 1987

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D046941530

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

	SURFACE	WELL
COMMUNITY	A. ☐	B. ☐
NON-COMMUNITY	C. ☐	D. ☐

N/A

02 STATUS

ENDANGERED	AFFECTED	MONITORED
A. ☐	B. ☐	C. ☐
D. ☐	E. ☐	F. ☐

03 DISTANCE TO SITE

A. _____ (mi)
B. _____ (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☐ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available) ☒ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER N/A

03 DISTANCE TO NEAREST DRINKING WATER WELL N/A (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
2 (ft)	Unknown	~ 2 (ft)	N/A (gpd)	☐ YES ☒ NO

09 DESCRIPTION OF WELLS (Including useage, depth, and location relative to population and buildings)

A survey of wells in a five mile radius of the facility indicates 18 wells ranging in depth from 35 to 700 feet. The nearest off-site well is located within 1.3 miles and is owned by the American Ref-Fuel Co.

10 RECHARGE AREA		11 DISCHARGE AREA	
☒ YES ☐ NO	COMMENTS: The area is located adjacent to the Hackensack Meadowlands and Newark Bay.	☒ YES ☐ NO	COMMENTS: The area is located adjacent to the Hackensack Meadowlands and Newark Bay.

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ A. RESERVOIR, RECREATION DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Newark Bay	☒	Contiguous (mi)
	☐	(mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. _____ NO. OF PERSONS	B. _____ NO. OF PERSONS	C. > 500,000 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION 1.5 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE Numerous

04 DISTANCE TO NEAREST OFF-SITE BUILDING 50 feet (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

The area in which the BASF facility lies is developed extensively for transportation, industrial and commercial uses. The nearest residential developments are located across Newark Bay in Newark, Essex County.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D046941530

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-6} - 10^{-8}$ cm/sec ☒ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☐ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

Unknown

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
unknown (ft)	Unknown (ft)	Unknown	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE		
		SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
12 (in)	2.5 (in)	0.005 %	Unknown	0.005 %

09 FLOOD POTENTIAL

SITE IS IN 100 YEAR FLOODPLAIN

10 ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE	OTHER
A. N/A (mi)	B. 2.5 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

N/A (mi)

ENDANGERED SPECIES: N/A

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS	
		PRIME AG LAND	AG LAND
A. Contiguous (mi)	B. 1.5 (mi)	C. N/A (mi)	D. N/A (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The facility is located on a relatively flat portion on the tip of Kearney Point. The facility is bounded to the south by Newark Bay, to the west by the Passaic River and to the east by the Hackensack River. The facility is located adjacent to the Hackensack Meadowlands.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Attachment B Part B Permit Application

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D046941530

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER		Quarterly monitoring of effluent	

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
	N/A

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☐ GROUND ☒ AERIAL

02 IN CUSTODY OF _____ (Name of organization or individual)

03 MAPS ☐ YES ☒ NO

04 LOCATION OF MAPS: N/A

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

N/A

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Attachment E Violations, NJPDES Permit No. NJ0001112
Attachment G NJPDES Permit No. NJ0001112

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D046941530

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
BASF Corporation		100 Cherry Hill Road		Parsippany	NJ	07054

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE	12 CITY	13 STATE	14 ZIP CODE
BASF Aktiengesellschaft		6700 Ludwigshafen am Rhein		Federal Republic of Germany		

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
American Cork Company		50 Central Avenue		Kearny	NJ	07032

IV. REALTY OWNER(S) (If applicable; list most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Kearny Tax Assessor

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D046941530

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
BASF Corporation	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
50 Central Avenue	

05 CITY	06 STATE	07 ZIP CODE
Kearny	NJ	07032

08 YEARS OF OPERATION	09 NAME OF OWNER
1964 to date	BASF Corporation

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER
BASF Corporation	

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
100 Cherry Hill Road	

14 CITY	15 STATE	16 ZIP CODE
Parsippany	NJ	07054

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

01 NAME	02 D+B NUMBER
American Cork Company	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
50 Cnetral Avenue	

05 CITY	06 STATE	07 ZIP CODE
Kearny	NJ	07032

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
Unknown	Unknown

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Kearny Tax Assessor

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D046941530

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
N/A	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
N/A			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
N/A			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

N/A

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D046941530

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D046941530

II PAST RESPONSE ACTIVITIES *(Continued)*

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported.

III. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

N/A

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NJ	D046941530

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☒ YES ☐ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

In September 1982, the USEPA issued an Order to Badische Corporation due to repeated violations of its NJPDES Discharge to Surface Water limitations from March 1980 until May 1982.

An Order was issued by the Hudson Regional Health Commission due to the emission of black smoke from the P.A. Incinerator on July 3, 1986.

A Field Record of Violation was issued by the New Jersey Department of Health on March 3, 1977 due to the emission of particles to the outside air from the phthalic an hydride plant scrubber stack. It was recommended that an Order be issued.

III. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

Attachment C Releases to Air March 3, 1977 and July 3, 1986
Attachment E Violations, NJPDES Permit No. NJ0001112

ATTACHMENTS

MAPS

1. USGS QUADRANGLE MAP
2. SITE MAP
3. TAX MAP
4. NJ ATLAS BASE MAP
5. GEOLOGIC OVERLAY
6. WATER SUPPLY OVERLAY
7. COMPUTER GENERATED WATER WITHDRAWAL MAP

A. PART A PERMIT APPLICATION

B. PART B PERMIT APPLICATION

C. RELEASES TO AIR, MARCH 3, 1977 AND JULY 3, 1986

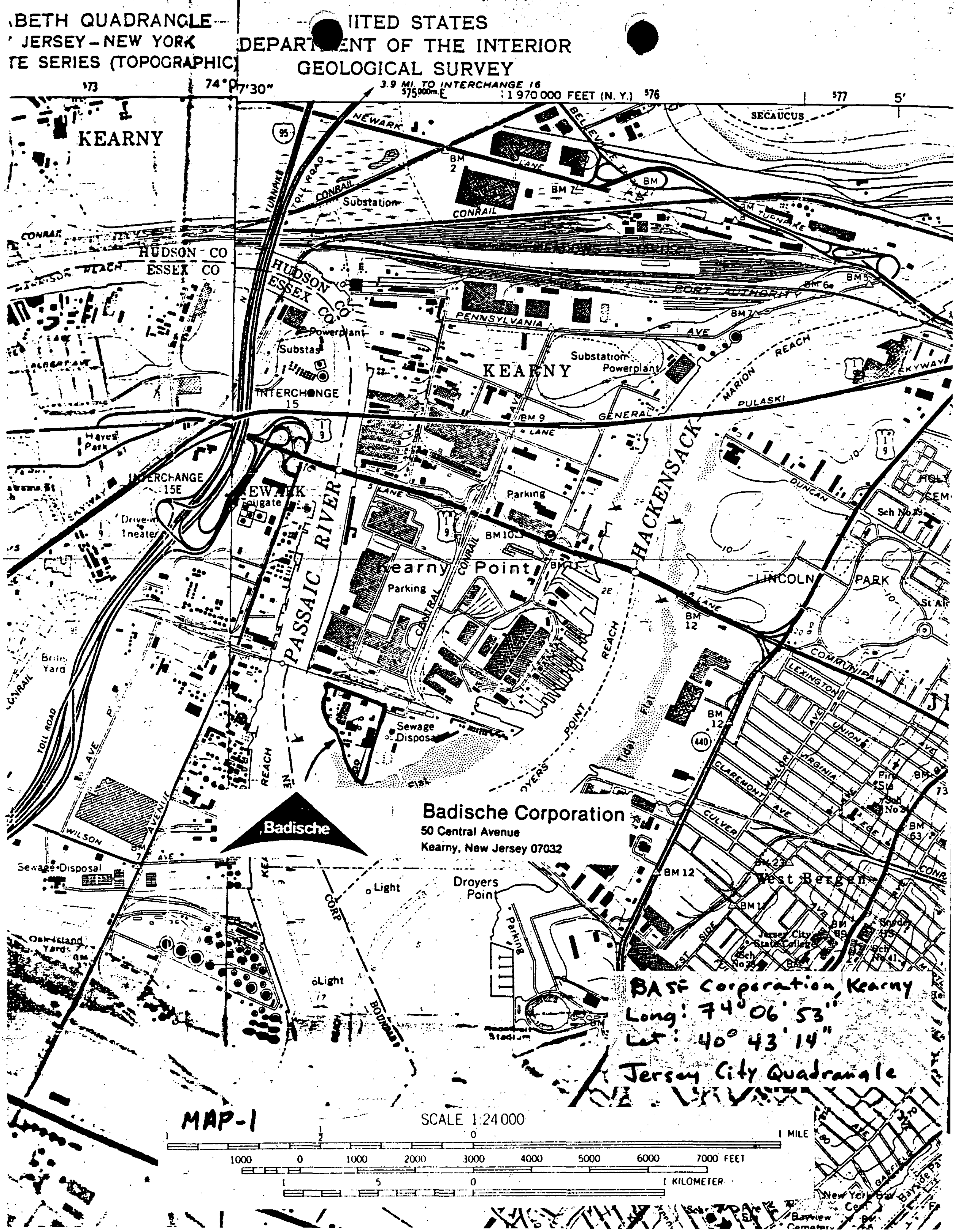
D. INVENTORY OF UNITS WITH POTENTIAL FOR VOLATILE ORGANIC SUBSTANCE EMISSIONS, APRIL 1, 1981

E. VIOLATIONS, NJPDES PERMIT NO. NJ 0001112

F. DIVISION OF FISH, GAME, AND WILDLIFE, BUREAU OF MARINE FISHERIES REVIEW OF DRAFT NJPDES PERMIT

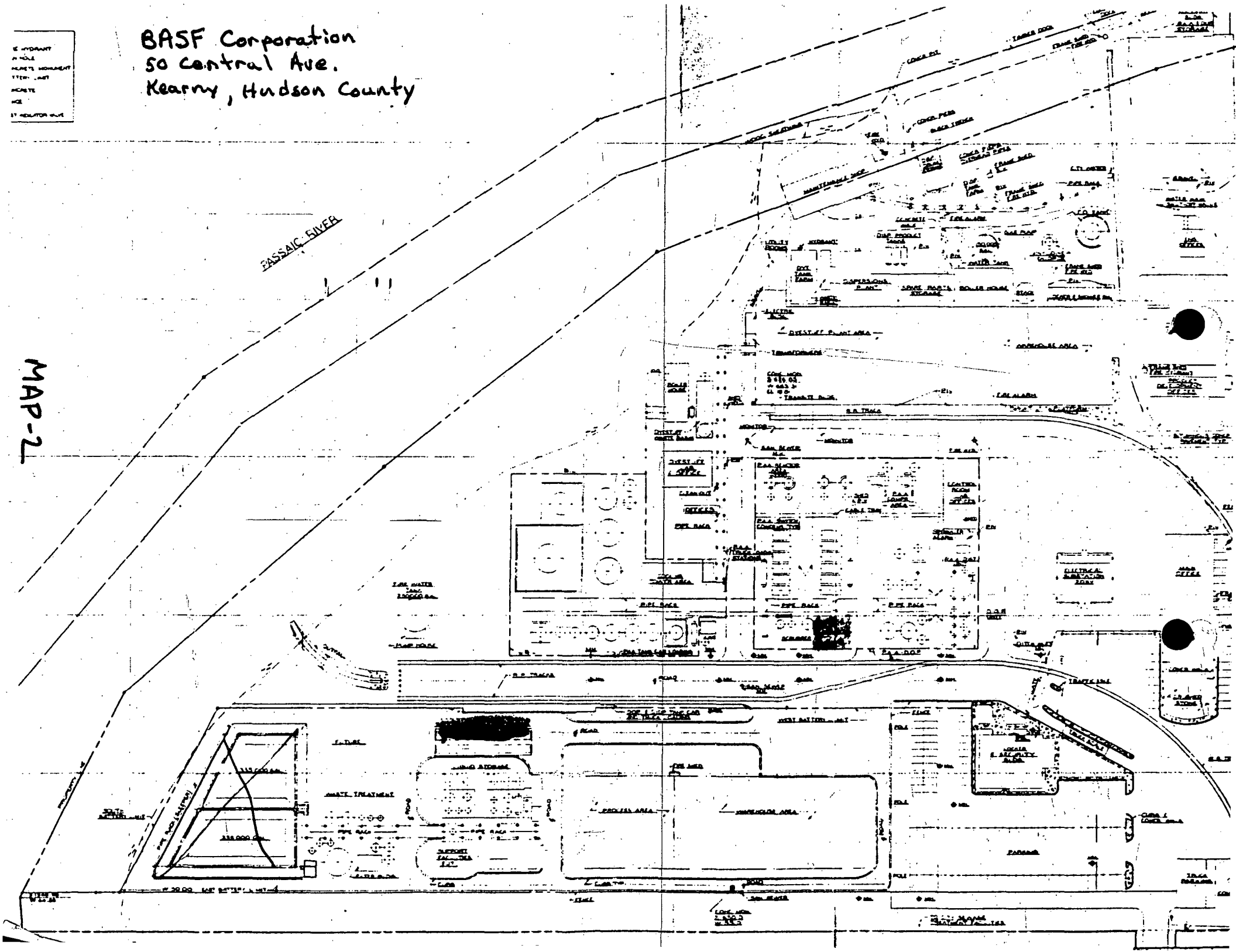
G. NJPDES PERMIT NO. NJ 0001112

H. MEMO RE: RCRA WALKTHROUGH SITE INSPECTION, MARCH 6, 1987

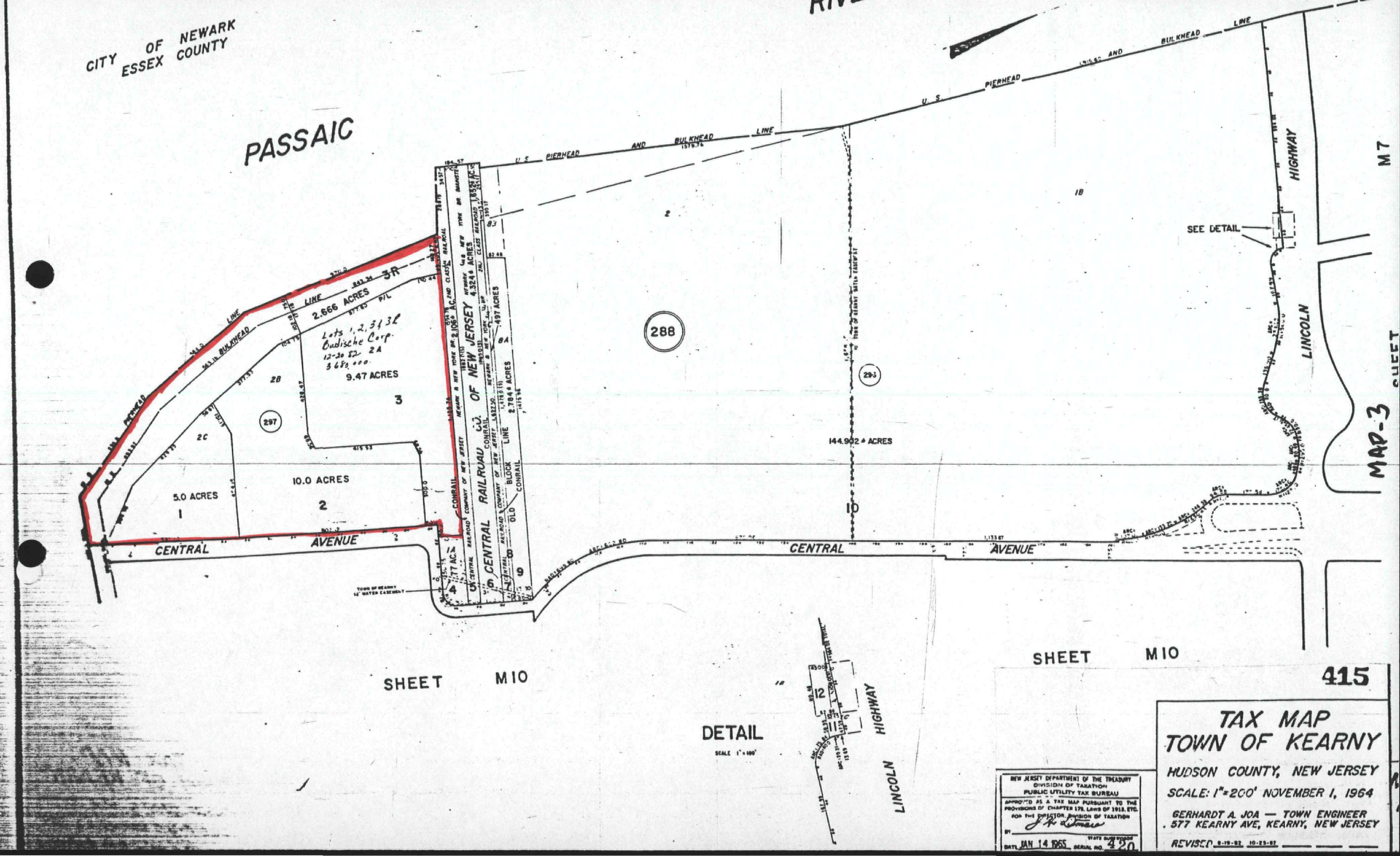


BETH QUADRANGLE
JERSEY – NEW YORK
TE SERIES (TOPOGRAPHIC)
IITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
3.9 MI. TO INTERCHANGE 16
1 970 000 FEET (N. Y.)
KEARNY
SECAUCUS
HUDSON CO
ESSEX CO
Substation
Powerplant
INTERCHANGE 15
INTERCHANGE 15E
NEWARK
PASSAIC RIVER
HACKENSACK
Kearny Point
Parking
LINCOLN PARK
PORT AUTHORITY
PENNSYLVANIA AVE
MARION REACH
PULASKI SKYWAY
COMMUNIPAW
Sewage Disposal
Droyers Point
West Bergen
Badische
Badische Corporation
50 Central Avenue
Kearny, New Jersey 07032
BASF Corporation, Kearny
Long: 74° 06' 53"
Lat: 40° 43' 14"
Jersey City Quadrangle
MAP-1
SCALE 1:24 000
1 MILE
7000 FEET
1 KILOMETER

BASF Corporation
50 Central Ave.
Kearny, Hudson County



MAP-2



CITY OF NEWARK
ESSEX COUNTY
PASSAIC
RIVER
U.S. PIERHEAD AND BULKHEAD LINE
2.666 ACRES
3R
Lots 1, 2, 3 & 3L
Badische Corp.
12-20-82 2A
3,683,000
9.47 ACRES
2B
3
297
2C
5.0 ACRES
1
10.0 ACRES
2
CENTRAL AVENUE
CONRAIL
NEWARK & NEW YORK RR. COMPANY OF NEW JERSEY
CENTRAL RAILROAD CO. OF NEW JERSEY
4.324 ACRES
497 ACRES
2.784 ACRES
OLD BLOCK LINE
1A
77 AC.
4
5
6
8
9
TOWN OF KEARNY 12" WATER EASEMENT
288
2
1B
295
144.902 ACRES
10
SEE DETAIL
LINCOLN HIGHWAY
M7
MAP-3
SHEET M10
DETAIL
SCALE 1" = 100'
12
11
415
TAX MAP
TOWN OF KEARNY
HUDSON COUNTY, NEW JERSEY
SCALE: 1" = 200' NOVEMBER 1, 1964
GERHARDT A. JOA — TOWN ENGINEER
577 KEARNY AVE, KEARNY, NEW JERSEY
REVISED 8-19-82 10-25-82
NEW JERSEY DEPARTMENT OF THE TREASURY
DIVISION OF TAXATION
PUBLIC UTILITY TAX BUREAU
APPROVED AS A TAX MAP PURSUANT TO THE PROVISIONS OF CHAPTER 178, LAWS OF 1913, ETC.
FOR THE DIRECTOR, DIVISION OF TAXATION
DATE JAN 14 1965
SERIAL NO. 420


NEWARK AIRPORT
PORT NEWARK TERMINAL
ASPEN
28 FOOT CHANNEL
LEHIGH VALLEY
PENNSYLVANIA R.R. FREIGHT TERMINAL
Caven Pt.
STATUE OF LIBERTY
MORRIS CANAL
NEW YOR
Constable Hook
SHEET 26
TOPOGRAPHIC SERIES
Scale: 1 Mile to an Inch.
Miles
Yards
Meters
MAP-4

LEGEND FOR ATLAS SHEET 26 (GEOLOGY)

△ — INDUSTRIAL WELL YIELD OVER 70 GALLONS PER MINUTE (INCLUDING PRIVATE WELLS)

□ — PUBLIC SUPPLY WELL YIELDING OVER 70 GALLONS PER MINUTE

⊕ — UNSUCCESSFUL ROCK WELL YIELDING LESS THAN 70 GALLONS PER MINUTE

⊙ — UNSUCCESSFUL SAND WELL YIELDING LESS THAN 70 GALLONS PER MINUTE

[t] — NO TEST – NO DATA ON YIELD

——— FAULT (DASHED WHERE INFERRED)

——— CONTACT (DASHED WHERE INFERRED)

PHYSIOGRAPHIC PROVINCE BOUNDARY

WATER SUPPLY TRANSMISSION LINE

NOTE: WHERE THE PRECAMBRIAN FORMATION BOUNDARIES TERMINATE ABRUPTLY, IT IS THE GEOLOGIST'S OPINION THAT THE GEOLOGICAL COMPLEXITY OF THE AREA PREVENTS FURTHER INTERPRETATIONS.

Kmr — CRETACEOUS MAGOTHY AND RARITAN FORMATIONS (SAND AND CLAY)

Trb — TRIASSIC BRUNSWICK FORMATION

Trc — TRIASSIC CONGLOMERATE BEDS OF THE STOCKTON FORMATION

Trl — TRIASSIC LOCKATONG FORMATION

Trdb — TRIASSIC DIABASE

Trbs — TRIASSIC BASALT FLOWS

Sd — SILURIAN DECKER LIMESTONE AND LONGWOOD SHALE FORMATIONS

Sgp — SILURIAN GREEN POND CONGLOMERATE

Omb — ORDOVICIAN MARTINSBURG SHALE

Cok — CAMBRO ORDOVICIAN KITTATINNY LIMESTONE

Ch — CAMBRIAN HARDYSTON SANDSTONE

PRECAMBRIAN:

gh – HORNBLENDE GRANITE WITH PYROXENE GRANITE

ga – ALASKITE

am – AMPHIBOLITE

px – PYROXENE GNEISS

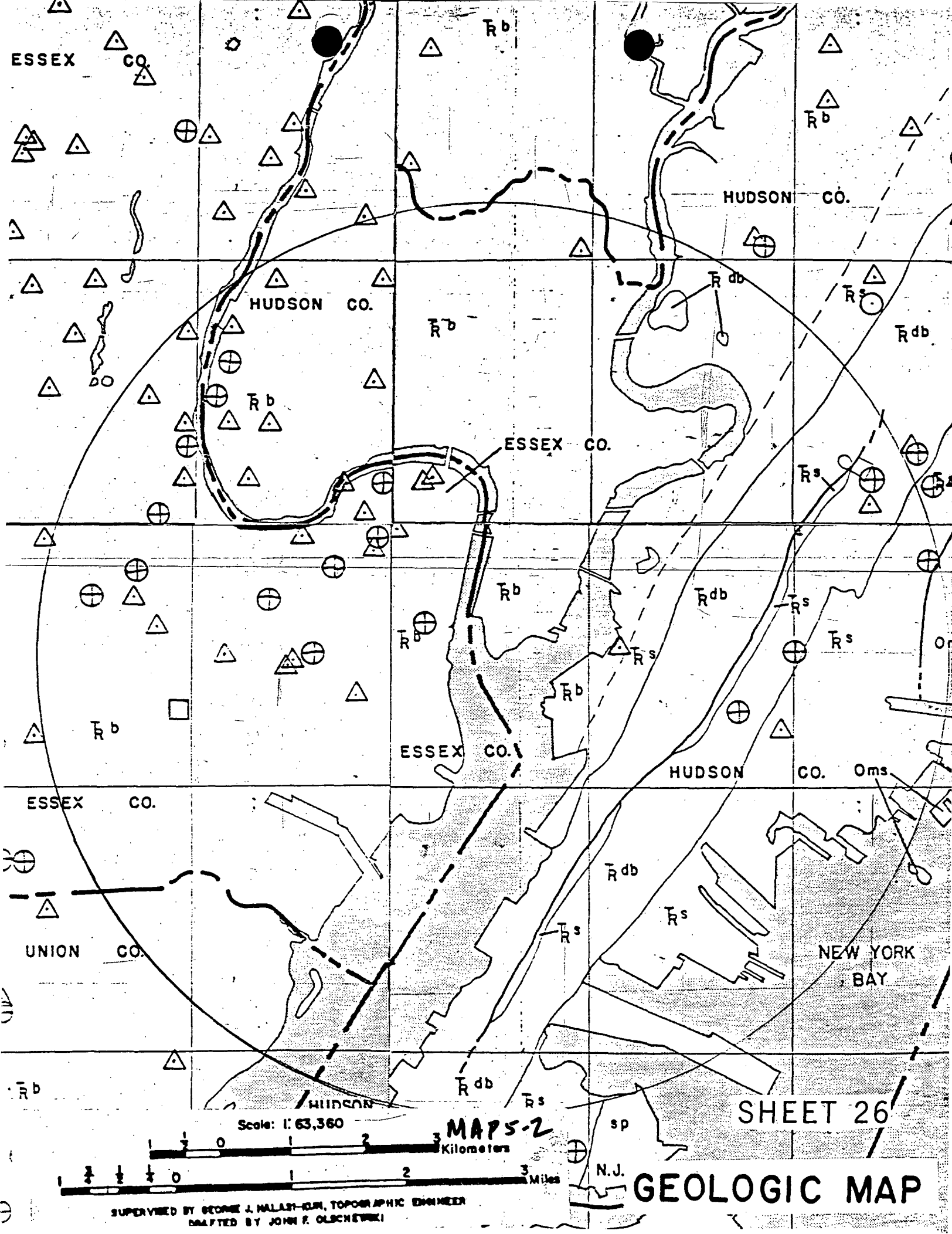
gnq – QUARTZ PLAGIOCLASE GNEISS

gnb – BIOTITE GNEISS

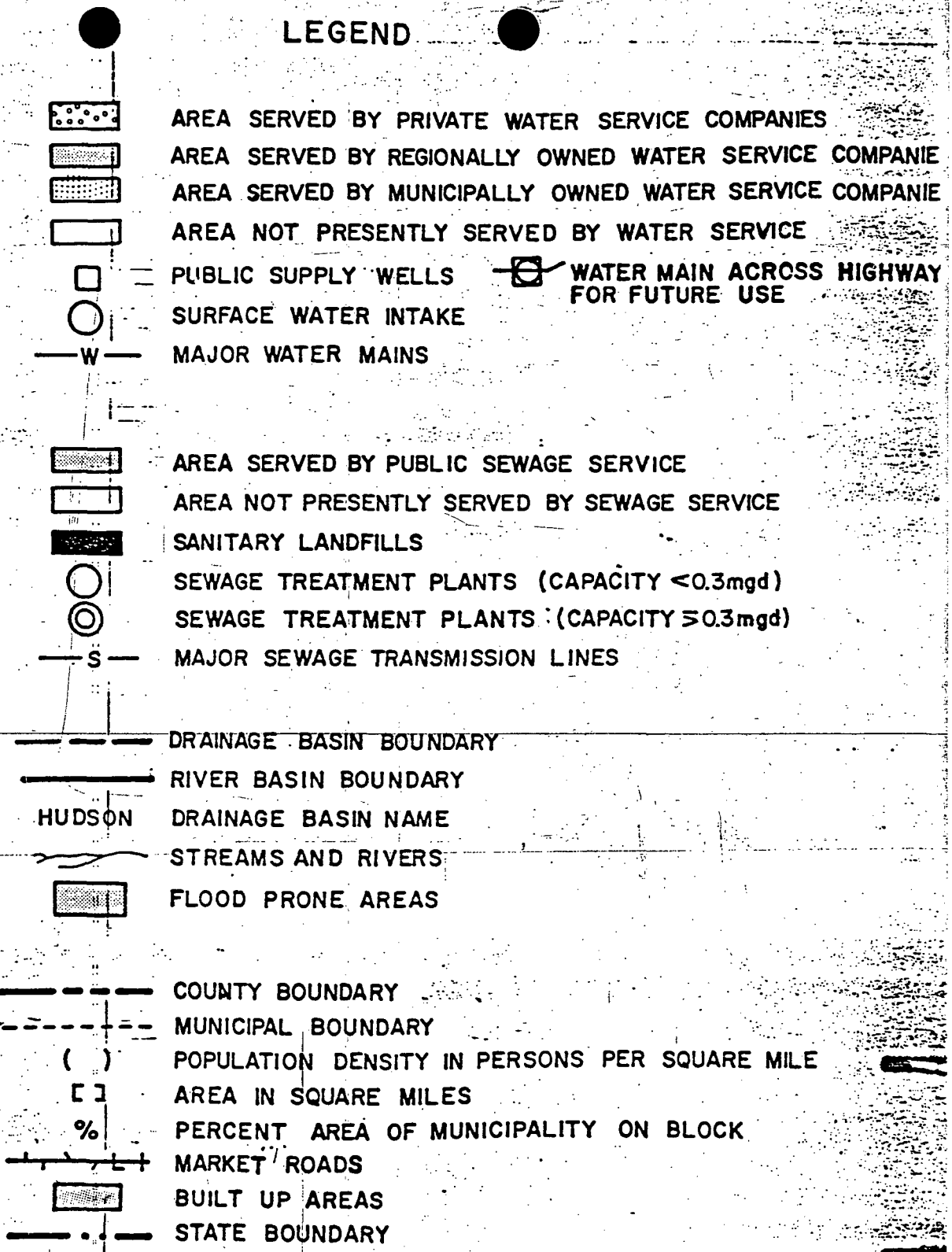
sk – SKARN, GRAPHITE SCHIST

fnd — FORMATION NOT DETERMINED

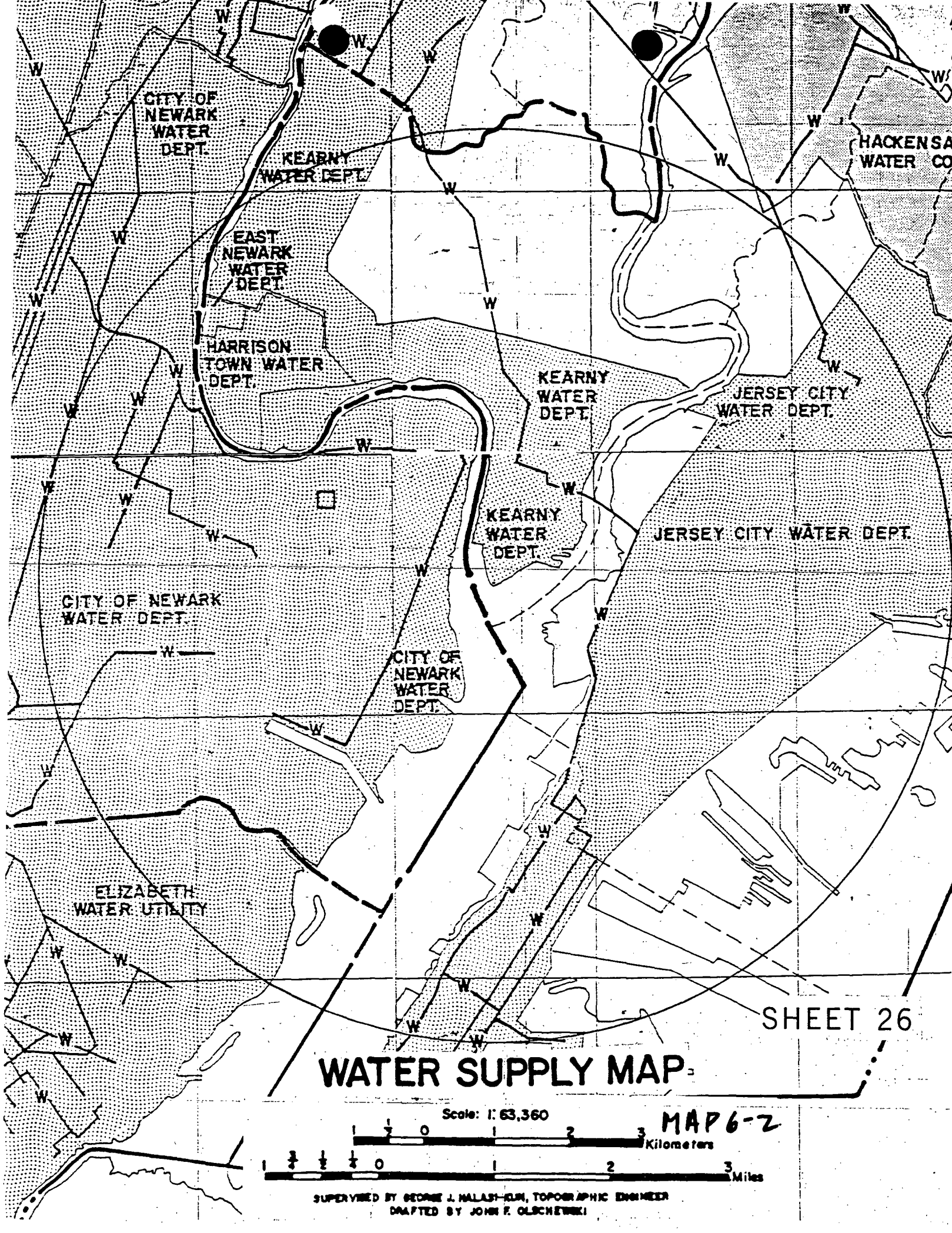
MAP-5


ESSEX CO.
HUDSON CO.
HUDSON CO.
ESSEX CO.
ESSEX CO.
HUDSON CO.
ESSEX CO.
UNION CO.
NEW YORK BAY
N.J.
Oms
Scale: 1:63,360
MAPS-2
Kilometers
Miles
SHEET 26
GEOLOGIC MAP
SUPERVISED BY GEORGE J. HALLAS-KUN, TOPOGRAPHIC ENGINEER
DRAFTED BY JOHN F. OLSCHEWSKI

LEGEND


AREA SERVED BY PRIVATE WATER SERVICE COMPANIES
AREA SERVED BY REGIONALLY OWNED WATER SERVICE COMPANIE
AREA SERVED BY MUNICIPALLY OWNED WATER SERVICE COMPANIE
WATER SUPPLY
AREA NOT PRESENTLY SERVED BY WATER SERVICE
PUBLIC SUPPLY WELLS
WATER MAIN ACROSS HIGHWAY FOR FUTURE USE
SURFACE WATER INTAKE
W
MAJOR WATER MAINS
AREA SERVED BY PUBLIC SEWAGE SERVICE
AREA NOT PRESENTLY SERVED BY SEWAGE SERVICE
SANITARY LANDFILLS
SEWAGE, LANDFILL
SEWAGE TREATMENT PLANTS (CAPACITY <0.3mgd)
SEWAGE TREATMENT PLANTS (CAPACITY ≥0.3mgd)
S
MAJOR SEWAGE TRANSMISSION LINES
DRAINAGE BASIN BOUNDARY
RIVER BASIN BOUNDARY
DRAINAGE BASIN
HUDSON
DRAINAGE BASIN NAME
STREAMS AND RIVERS
FLOOD PRONE AREAS
COUNTY BOUNDARY
MUNICIPAL BOUNDARY
( )
POPULATION DENSITY IN PERSONS PER SQUARE MILE
POPULATION
[ ]
AREA IN SQUARE MILES
%
PERCENT AREA OF MUNICIPALITY ON BLOCK
MARKET ROADS
BUILT UP AREAS
STATE BOUNDARY

MAD-6


CITY OF NEWARK WATER DEPT.
KEARNY WATER DEPT.
EAST NEWARK WATER DEPT.
HARRISON TOWN WATER DEPT.
KEARNY WATER DEPT.
JERSEY CITY WATER DEPT.
KEARNY WATER DEPT.
JERSEY CITY WATER DEPT.
CITY OF NEWARK WATER DEPT.
CITY OF NEWARK WATER DEPT.
ELIZABETH WATER UTILITY
HACKENSA WATER CO
SHEET 26
WATER SUPPLY MAP
Scale: 1: 63,360
MAP 6-2
Kilometers
Miles
SUPERVISED BY GEORGE J. HALLASHKUN, TOPOGRAPHIC ENGINEER
DRAFTED BY JOHN F. OLSCHEWSKI

BLOCK #26-12 8/76

A. Elizabeth, Orange

B. Arthur Kill-Elizabeth, Rahway; Hackensack-Hackensack; Passaic-Lower Passaic

C. 2.

Map No.	Location	Period of Record
63	Second River at Brighton Ave.,East Orange	7/23/38
64	Second River at Bloomfield Ave., Bloomfield	7/23/38
65	Second River at Belleville	1937-1961
66	Second River at Newark Pipe, Belleville	7/23/33
67	Elizabeth River at Irvington	1931-1938
3. 262	Passaic River at Harrison	1967-1971

Water Quality Standards: (explained in Atlas Sheet description)
FW3, TW2 except where classified TW3

D. Brunswick Formation (Trb), Basalt Flows (Trbs)

E. 1. Physiographic Province: Piedmont
Subdivision: Triassic Lowlands
Major Topographic Features: Red Sandstone Plain, Watchung Ridges
Elevations (ft.above sea level): ridges 650, valleys 0
Relief (ft.): 650

2. a. Normal Year: 45"
Dry Year: 37"
Wet Year: 55"

b. January: 31°F
July: 74°F

c. 243 days. Last killing frost: 4/15; first killing frost: 10/20

F. Bergen County:
Riverside County Park and Hackensack River Area
Essex County:
Eagle Rock Reservation
Branch Brook Park

H. Montclair Railroad Terminal, Montclair
Israel Crane House, Montclair
Sydenham House, Newark
Kruegar Mansion, Newark
Penn Station, Newark
First Baptist Peddie Memorial Church, Newark
Saint James A.M.E., Newark
Saint Stephan's Church, Newark
Saint James's Church, Newark
Saint Mary's Church, Newark
Saint Barnabas, Newark
Saint Columba's Church, Newark
Saint John's Church, Newark
Saint Patricks Procathedral, Newark
Queen of Angels Church, Newark

MAP 6-3

H.(contd.)
Cathedral Evangelica Reformada, Newark
New Point Baptist Church, Newark
South Park Presbyterian Church, Newark
Pan American C.M.A. Church, Newark
First United Methodist Church, Newark
House of Prayer Episcopal Church and Rectory, Newark
Grace Church, Newark
North Reformed Church, Newark
The Old First Presbyterian Church, Newark
Trinity Episcopal Church, Newark

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
26-12-157	Hahne & Co.			505	240	Trb
26-12-164	Quadrel, Michael	1955	18	151	75	"
26-12-194	Town of Montclair	1966	21/41	300	950	"
26-12-194	Montclair Water Bureau	1966	16/36	300	470	"
26-12-218	Glen Ridge Country Club	1967	40	300	200	"
26-12-222	Bloomfield Savings Bank	1956		145	100	"
26-12-313	Hoffman-LaRoche			902	128	"
26-12-327	Food Fair Stores, Inc.			209	70	"
26-12-334	Kingsland's Paper Mills			400	125	"
26-12-335	Wiggins Plastics, Inc.	1963	24'-3/12"	378	180	"
26-12-338	Federal Telecommunications Lab	1958	39'6"	500	114	"
26-12-386	Liquid Carbonic Corp.			518	100	"
26-12-389	National Yeast Corp.			512	126	Trbs
26-12-394	Federal Leather Co.			802	60	Trb
26-12-417	Schering Corp.			478	127	"
26-12-423	Kidde W. & Co.			400	400	"
26-12-448	Orange Dairy Co.			250	75	"
26-12-449	City of Orange	1970	61'5"	500	524	"
26-12-478	"	1971	56	506	500	"
26-12-486	Colonial Life Ins. Co.			357	323	"
26-12-513	Leonora Corp.	1957	33	200	70	"
26-12-526	Eastern Tool & Mfg.Co.			550	126	"
26-12-537	National Grain & Yeast Corp.			457	125	"
26-12-545	MGM Records (Div.of Loews)	1959	23	211	115	"
26-12-545	"	1960	36	579	120	"
26-12-547	"			400	275	"
26-12-557	Warner Mfg. Co.			395	220	"
26-12-566	Tiffany & Co.			800	50	"
26-12-577	Bloomfield Moulding Co.	1968	18	350	200	"
26-12-622	Mansol Ceramics Co.			250	100	"
26-12-644	Droll Molding Co., Inc.	1962	50	300	80	"
26-12-655	Summit Chemical Prod.Corp.			414	150	"
26-12-657	Crowhurst, A.J. & Sons			83	325	Q
26-12-675	Aluminum Finishing Co.			150	100	Trb
26-12-682	North Newark Ice Co.			250	123	"
26-12-695	V.H. Swenson Co.	1962	49	40	170	"

MAP 6-4

26-12-723	Mountain Ice Co.			634	300	Trb
26-12-729	Vinton Apartments Inc.	1955	52	255	160	"
26-12-747	Columbia Theaters, Inc.	1953	26	312	140	"
26-12-751	Woolworth & Co.	1965	76'10"	300	80	"
26-12-758	Food Fair Stores	1956	73	214	180	"
26-12-783	Pabst Brewing Co.			535	300	"
26-12-812	Ward Baking Co.			200	111	"
26-12-822	Crabb, W. & Co.			600	300	"
26-12-827	Trent Hat Corp.			200	150	"
26-12-839	Reid Ice Cream Co.			600	100	"
26-12-846	Fagin Brothers Coal Yard			150	100	"
26-12-864	Barton Realty Co., Inc.	1965		385	100	"
26-12-869	Alderney Dairy Co.			450	113	"
26-12-893	Ballantine & Son Ale			1200	0	"
26-12-896	Mutual Benefit Life Ins.Co.	1965	44'8"	312	219	"
26-12-898	Prudential Life Ins. Co.			1225	15	"
26-12-918	Abbey Record Co.	1962	24	697	135	"
26-12-921	Two Guys from Harrison	1959	99	405	628	"
26-12-933	DuPont			202	148	"
26-12-942	N.J. Rolling Mills	1963	99	400	20	"
26-12-944	Harrison Supply Co.	1966	88	174	50	"
26-12-948	Mountain Ice & Fuel Co.			350	122	"
26-12-957	Doelger Brewery			400	175	"
26-12-966	Verzelano, N.	1959	146	235	150	"
26-12-976	Driver-Harris Co.	1946	241	337	600	Q
26-12-994	Acme Refining Co.	1960	144	500	150	Trb
26-12-996	Lister Brothers			1200	0	"
26-12-998	Stanley Tools			637	125	"

J. Geodetic Control Survey monuments described
Index Maps 21,26; adjacent Index Maps 20,25

BLOCK #26-13

A. Jersey City, Orange, Weehawken

B. Hudson-Hudson; Hackensack-Hackensack; Passaic-Lower Passaic

C. 3.

Map No.	Location	Period of Record
242	Berry's Creek at Moonachie, Moonachie Ave.	1964-
263	Hackensack River at Harrison, Belleville Tpk.	1967-

Water Quality Standards: (explained in Atlas Sheet description)
TW2 except where classified TW3

D. Brunswick Formation (Trb), Stockton Formation (Trs), Diabase (Trdb), Manhattan Schist (Oms)

E. 1. Physiographic Province: Piedmont
Subdivision: Triassic Lowlands
Major Topographic Features: Red Sandstone Plain, Palisades Ridge, Hackensack Meadows
Elevations (ft.above sea level): ridges 250, valleys 0
Relief (ft.): 250

2. a. Normal Year: 43"
Dry Year: 36"
Wet Year: 53"

b. January: 32°F
July: 74°F

c. 245 days. Last killing frost: 4/10; first killing frost: 10/20

F. Bergen County:
Riverside County Park and Hackensack River Area

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
26-13-157	Pennick, S.B. Co.	1966	42	352	180/200	Trb
26-13-177	Breyer Ice Cream Co.			702	200	"
26-13-195	Omni Chemical Corp.	1968	39	300	157	"
26-13-195	Sika Chemical Corp.	1966	25	302	220	"
26-13-214	Trubeck Laboratories	1956	191	201	105	Q
26-13-215	Beckton & Dickinson	1966	118	363	251	Trb
26-13-216	Marijon Piece Dye Co.	1965	45	285	135	"
26-13-226	Hackensack Water Co.	1954	92'11"	103	No test	Q
26-13-234	U.S. Printing Ink Co.	1965	70	220	60	Trb
26-13-268	Top Notch Plating Co.	1965	21	300	190	"
26-13-298	Alpha Refining Co.			400	115	"
26-13-415	Minit-Man Auto Car Wash	1957	39	180	90	"
26-13-447	Food Fair Stores, Inc.	1956	30	320	82	"
26-13-499	Pfaff Tool & Mfg. Co.	1963	66.5	740	145	"

MAP-6-6

26-13-598	Erie Railroad			184	200	Trs
26-13-598	"			182	4	Trb
26-13-615	Keystone Metal Finishers	1968	20	200	312	"
26-13-642	"	1950	18	200	76	"
26-13-655/6	"	1960	21	150	150	Trs
26-13-668	Kiesewetter			380	0	Trdb-Trs
26-13-695	North Bergen Realty Co.			72	90	Q
26-13-775	Fairmount Chemical Co.	1965	114	300	300	Trb
26-13-775	United Shellac Co.			475	200	"
26-13-921	Miller & Co.			135	925	Q
26-13-924	DeAngelis Packing Co.	1948		45	0	"
26-13-983	Mehl, John & Co.	1913		1020	150	Trdb
26-13-983	"	1923		1050	40	"
26-13-984	Mountain Ice Co.			950	0	Trdb-PG
26-13-987	Steel Laundry Co.			1028	130	" "
26-13-994	General Refrigerator			1350	0	Trs-PG
26-13-995	Columbia Amusement Park			200	100	Trs

J. Geodetic Control Survey monuments described
Index Maps 21,26; adjacent Index Map 16

MAP 6-7

A. Elizabeth

B. Arthur Kill-Elizabeth, Elizabeth Channel, Morses Creek; Passaic-Lower Passaic

C. 1. Newark WSO AP - Detailed meteorologic data

	Map No.	Location	Period of Record
2.	67	Elizabeth River at Irvington	1931-1938
	68	Elizabeth River at Nye Ave., Irvington	7/23/38
	72	Elizabeth River at Elizabeth	1921-
3.	262	Passaic River at Harrison	1967-1971
	272	Elizabeth River at Morris Ave., Elizabeth	1964-

Water Quality Standards: (explained in Atlas Sheet description)
FW3, TW2 except where classified TW3

D. Brunswick Formation (Trb), Stockton Formation (Trs), Diabase (Trdb)

E. 1. Physiographic Province: Piedmont
Subdivision: Triassic Lowlands
Major Topographic Features: Wisconsin Terminal Moraine, Red Sandstone Plain, Hackensack Meadows, Newark Bay, Palisades Ridge
Elevations (ft.above sea level): ridges 300, valleys 0
Relief (ft.): 200

2. a. Normal Year: 44"
Dry Year: 36"
Wet Year: 53"

b. January: 32°F
July: 74°F

c. 243 days. Last killing frost: 4/15; first killing frost 10/20

F. Essex County:
Weequahic Park
Union County:
Elizabeth River Park
Warinanco Park

H. Boxwood Hall/Boudinot Mansion, Elizabeth (State Owened)

MAP 6-8

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
26-22-143	Irvington Smelting & Ref.Wks.	1953	71	209	192	Trb
26-22-143	"	1953	62'4"	304	300	"
26-22-145	Associated Mech.Devices	1960	83	250	80	"
26-22-149	Gallo Asphalt Co.	1961	107	201	200	"
26-22-213	Krueger Brewing Co.			656	435	"
26-22-228	Smith & Smith Funeral Parlor			776	25	"
26-22-234	U.S. Navy			565	39	"
26-22-237	Conmar Corp.			300	450	"
26-22-262	National Lock Washer Co.			800	100	"
26-22-275	Linde Air Products Co.	1954	44'5"	500	124	"
26-22-293	New York Port Authority	1968	60	370	260	"
26-22-322	Standard Bitulithic Co.	1964	89'11"	406	360	"
26-22-327	Pfeiffer, H.			505	12	"
26-22-333	Arkansas Co., Inc.	1965	72'9"	400	65	"
26-22-333	Ronson Metals Corp.	1965	80	300	220	"
26-22-334	Wilson, H.A. Co.			778	8	"
26-22-345	Chem-Fleur	1965	97	306	200	"
26-22-355	Englehard Ind., Inc.	1966	54/79'8"	428	167	"
26-22-355	"	1965	80'7"	400	401	"
26-22-356	"	1966	78.5/92	495	4	"
26-22-368	Rutherford & Delaney Hldg.Co.	1956	42	220	100	"
26-22-411	Bristol Meyers	1967	49	500	159	"
26-22-418	Dillon-Beck Mfg. Co.			379	100	"
26-22-449	Elizabethtown Water Co.			400	550	"
26-22-463	Orbis Products Corp.	1958	157	350	12	"
26-22-517	Pennick, S.B. Co.	1961	64'10"	585	24	"
26-22-518	Pure Carbonic			600	30	"
26-22-546	Black Diamond Grit Co.	1960	92	265	150	"
26-22-574	Londat Aetz Fabric Co.	1965	50	600	30	"
26-22-574	Elizabeth Abbatoir			641	75	"
26-22-744	Morey LaRue Laundry			700	15	"
26-22-745	"			600	14	"
26-22-785	Stevenson Car Co.			300	95	"
26-22-786	Feldman Brothers			805	54	"
26-22-795	Reichold Chemical Co.	1967	39'6"	400	415	"
26-22-828	Singer Mfg. Co.			1200	90	"
26-22-833	General Chemical Co.	1965	106	500	70	"
26-22-842	Clauss Bottling Works			500	50	"
26-22-847	Elizabethtown Gas & Light			300	0	"
26-22-852	Riker Motor Co.			500	0	"
26-22-854	Thomas & Betts Co., Inc.			500	264	"

J. Geodetic Control Survey monuments described
Index Map 26; adjacent Index Map 31

MAP 6-9

BLOCK #26-23,24 8/76

A. Elizabeth, Jersey City

B. Arthur Kill-Elizabeth Channel, Passaic-Upper Passaic

C. 1. Jersey City - Non-recording temperature and precipitation gauges

Water Quality Standards: (explained in Atlas Sheet description)
TW2 except where classified TW3

D. Brunswick Formation (Trb), Stockton Formation (Trs), Diabase (Trdb), Manhattan Schist (Oms), serpentine (sp)

E. 1. Physiographic Province: Piedmont
Subdivision: Triassic Lowlands
Major Topographic Features: Red Sandstone Plain, Palisades Ridge, Hackensack Meadows, Newark Bay, New York Bay
Relief: 10'

2. a. Normal Year: 43"
Dry Year: 35"
Wet Year: 49"
b. January: 32°F
July: 74°F
c. 245 days. Last killing frost: 4/10; first killing frost: 10/20

F. Hudson County:
Lincoln Park
Div. of Parks and Forestry:
Liberty State Park
Little Basin Area

G. U.S. National Park Service:
Statue of Liberty National Monument (Ellis Island)
U.S. Army:
Military Ocean Terminal

H. Statue of Liberty National Monument
Hudson County Courthouse, Jersey City

I. Water Well Records

Location	Owner	Year Drilled	Screen Setting or Depth of Casing	Total Depth	g/m Yield	Formation
26-23-111	Pfaff & Kendall	1965	81.5	200	100	Trb
26-23-142	Lincoln Farm Prod.Co.			109	25	Trbs
26-23-245	Spalding & Jennings			422	75	Trb-Pg
26-23-291	Berkeley Industries	1956	115/140	335	60	Trbd
26-23-293/6	Snead & Co.			300	60	Q
26-23-333	Erie Railroad			197	157	Oms
26-23-334	Lembeck & Betz's Brewery			1000	33	Trs
26-23-344	Burnett Ave. (228) Co.			438	55	"
26-23-763	Esso Standard Oil Co.	1959	114/252	505	3	"

J. Geodetic Control Survey monuments described
Index Map 26; adjacent Index Maps 31,21,16

MAP 6-10

Lenow

SUBJECT TO REVISION

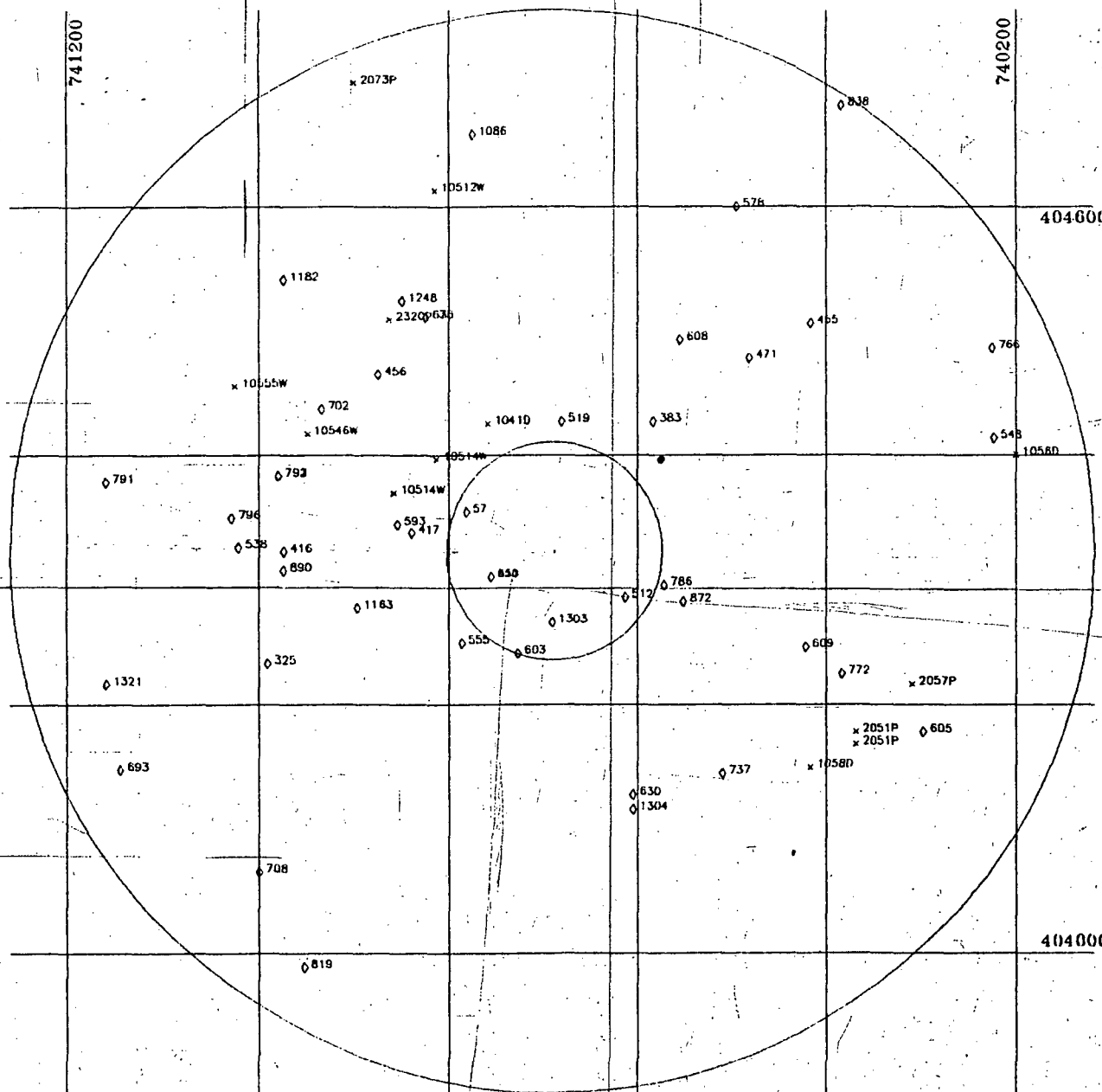
WATER WITHDRAWAL POINTS AND NJGS CASE INDEX SITES WITHIN 5.0 MILES OF:

LATITUDE 404314
LONGITUDE 740653

DRAFT

MAP-7

SCALE: 1:63,360
(1 Inch = 1 Mile)



× WATER WITHDRAWAL POINTS
◊ NJGS CASE INDEX SITES
1 MILE AND 5 MILE RADII INDICATED

NJGS CASE INDEX DATA RETRIEVED FROM:
NEW JERSEY GEOLOGICAL SURVEY
ON 12/22/87

PLOT PRODUCED BY:
NJDEP
DIVISION OF WATER RESOURCES
BUREAU OF WATER ALLOCATION
CN-029
TRENTON, NJ 08625
DATE: 05/26/88

SUBJECT TO REVISION

Page 1 of PRELIMINARY SURVEY OF WATER WITHDRAWAL POINTS WITHIN 5.0 MILES OF 404714 LAT. 740855 LON. (IN ORDER BY PERMIT NUMBER) - 05/15/98

NUMBER	NAME	SOURCE ID	LOCID	LAT	LON	LLACC	DISTANCE	COUNTY	MUN	DEPTH	GEOL	GEOG	CAPACITY
10410	AMERICAN REF-FUEL COMPANY	175 WELL	POINTS	404415	740735	F	1.3	13	14	35	3030		250
10512W	V.N. SWENSON CO., INC.	2502717	1	404403	740307	F	3.5	17	07	400	3TRB		150
10514W	SWENSON METALS CORP.	2503403	1	404153	740858	T	1.4	13	14	300	3TRB		150
	SWENSON METALS CORP.	2504747	5	404242	740531	T	1.0	13	14	165			100
10634W	PUBLIC SERVICE ELECTRIC & GAS	4600103	1	404413	740710	T	2.5	17	04	21	3TRB		150
10635W	NEW JERSEY BELL TELEPHONE	2400317	1	404407	741015		1.3	13	14	215	3TRB		50
10552	NEWPORT CITY DEV. CO.			404400	740328	F	4.4	17	36		U		1000
10553	PORT LIBERTE PARTNERS			404103	740410	F	3.1	17	08		U		200
20561P	LIBERTY HILLSIDE ASSOC.	4600077	STANDBY	404147	740741		3.3	39	07	275	3TRB		250
	LIBERTY HILLSIDE ASSOC.	4600078	STANDBY A	404141	740741		3.3	39	07	185	3TRB		250
	LIBERTY HILLSIDE ASSOC.	4600079	MAIN B	404141	740741		3.3	39	07	400	3TRB		465
	LIBERTY HILLSIDE ASSOC.	2500418	MAIN D	404141	740741		3.3	39	07	400	3TRB		350
20570P	SPINNERIN YARN CO., INC.	4600174	1	404210	740305	T	3.5	03	59	2301	3TRB		130
20772P	INTERNATIONAL MINERALS & CHEM.	4600672	1	404709	740900	T	4.7	13	01	352	3TRB		150
	INTERNATIONAL MINERALS & CHEM.	4600673	2	404709	740900	T	4.7	13	01	400	3TRB		150
	INTERNATIONAL MINERALS & CHEM.	2502113	3	404703	740900	T	4.7	13	01	300	3TRB		150
22330P	HONEYCOMB PLASTICS CORP.	4600152	1	404206	740838	S	2.6	17	07	2001	3TRB		110
	HONEYCOMB PLASTICS CORP.	2600284	2	404206	740838	S	2.6	17	07	750	3TRB		500

Number of Observations: 18

MAP 4-2

MAP 7-3

[illegible] PRIMARY [illegible] OF WATER [illegible] WITHIN [illegible] MILES OF [illegible] IN ORDER BY [illegible] LONGITUDE [illegible]

NUMBER	NAME	SOURCEID	LOCID	LAT	LON	?	DISTANCE	COUNTY	?	DEPTH	AQUI	?	CAPACITY
[illegible]	NEW JERSEY BELL [illegible]	2[illegible]173	1	404473	74[illegible]		3.3	13	14	215	[illegible]		60
[illegible]	PUBLIC SERVICE ELECTRIC & GAS	46[illegible]	1	404418	740[illegible]	F	0.5	17	04	216	[illegible]		250
20[illegible]	INTERNATIONAL MINERALS & CHEM.	4[illegible]92	1	404702	740965	T	4.7	1[illegible]	0[illegible]	352	STRF		100
[illegible]	INTERNATIONAL MINERALS & CHEM.	4600093	2	404700	740950	T	4.7	13	0[illegible]	400	STRS		150
[illegible]	INTERNATIONAL MINERALS & CHEM.	2600113	3	404700	740[illegible]	T	4.7	13	0[illegible]	402	STR[illegible]		150
[illegible]	[illegible] PLASTICS CORP.	46[illegible]	1	40[illegible]506	7405[illegible]	S	2.[illegible]	17	07	500	STRE		210
[illegible]	[illegible] PLASTICS CORP.	[illegible]	2	404506	7405[illegible]	S	[illegible]	17	07	700	STR[illegible]		500
[illegible]	ROWELL METALS CORP.	2600953	3	40434[illegible]	740[illegible]	T	[illegible]	17	14	[illegible]			150
[illegible]	[illegible] BRONSON CO., INC.	26[illegible]	[illegible]	4044[illegible]	740[illegible]	F	3.5	17	07	400	[illegible]		150
1251[illegible]	ROWELL METALS CORP.	2600438	1	404358	740[illegible]	T	1.4	13	14	300	STRE		150
[illegible]	AMERICAN REF-FUEL COMPANY	170 WELL	POINTS	404415	740708	F	1.3	13	14	35	[illegible]		250
[illegible]	PORT LIBERTE PARTNERS			404130	740410	F	3.1	17	0[illegible]				200
[illegible]	LIBERTY HILLSIDE ASSOC.	4600077	STANDBY	404147	740741		3.3	39	07	275	STRS		250
[illegible]	LIBERTY HILLSIDE ASSOC.	46[illegible]	STANDBY A	404141	740741		3.3	39	07	1[illegible]	STRS		250
[illegible]	LIBERTY HILLSIDE ASSOC.	4600075	MAIN B	404141	740741		3.3	39	07	400	STRS		465
[illegible]	LIBERTY HILLSIDE ASSOC.	[illegible]	MAIN [illegible]	404141	740741		3.3	39	07	400	STR[illegible]		250
[illegible]	[illegible]	4[illegible]74		40[illegible]	740[illegible]	[illegible]	2.[illegible]	[illegible]	[illegible]	230	STRS		130
[illegible]	[illegible] CITY DEVL CO.			404400	740[illegible]	F	4.4	17	0[illegible]				1000

Number of Observations: 18

[illegible] SITES WITHIN 5.0 MILES OF 404314 LAT, 740552 LON. AS OF [illegible] (IN ORDER BY DECREASING LONGITUDE) [illegible]

SITE-NO	NAME	LAT	LON	DISTANCE	CONTAM	PRCODE1	PRCODE2	STATUS1	STATUS2
791	GENERAL ELECTRIC CO-NEWARK LAMP PLANT	404340	741135	4.2	00	0103	3070	1	B
1031	J.T. HENRY CHEMICAL CO., NEWARK, ESSEX CO.	404338	741135	4.3	63	0110	3070	1	B
493	J.T. BAKER, PHILLIPSBURG, WARREN CO.	404129	741126	4.5	00	130	3010	1	A
744	A & F METALLIZING CO. INC., NEWARK, ESSEX CO.	404330	741017	3.0	00	0110	3070	1	B
502	J.L. ARMITAGE & CO., NEWARK, ESSEX CO.	[illegible]	741013	2.9	0	130	3070	1	
709	[illegible] RD. LANDFILL, ELIZABETH, UNION CO.	404240	741000	4.0	50	100	3070	0	
336	FRONTAGE ROAD DRUM DUMP, NEWARK, ESSEX CO.	404220	740655	2.8	1	0130	0	1	B
792	GEORGIA-PACIFIC CORP—CASTING OPER., NEWARK, ESSEX CO.	404350	740640	2.6	00	0110	3070	1	B
791	GEORGIA-PACIFIC CORP—POLYMER PLANT, NEWARK, ESSEX CO.	404350	740648	2.6	00	0110	3070	1	B
416	ALBERT STEEL DRUM/ [illegible] DRUG, NEWARK, ESSEX CO. (DIOXIN)	404314	740945	2.5	72	103	130	1	E
590	CHEM-FLEUR, NEWARK, ESSEX CO.	404345	740945	2.5	00	0110		1	B
1180	FRANKLIN PLASTICS, KEARNY, HUDSON CO.	404505	740940	3.5	34	0100	3070	1	B
819	[illegible] - ELIZABETH PLANT, UNION CO.	403950	740930	4.5	00	0103	0102	1	B
785	[illegible] COAL GAS SITE, HUDSON CO.	404422	740921	2.5	70	0110	3072	1	C
1167	OAK ISLAND-CONRAIL TERMINAL, NEWARK, ESSEX CO.	404247	740858	1.9	52			3	
464	CONRAIL-MEADOWS YARD, KEARNY, HUDSON CO.	404439	740845	2.3	52	101	130	1	
561	[illegible] METALS, NEWARK, ESSEX CO.	404327	740833	1.5	0	130	3072	9	
1245	[illegible] & GREEN, KEARNY, HUDSON CO.	404401	740830	2.7	53	0130	0101	1	C
417	[illegible] CHEM., NEWARK, ESSEX CO.	404321	740824	1.3	38	130	3070	1	
607	80-LISTER AVENUE, NEWARK, (DIOXIN CASE), ESSEX CO.	404507	740815	2.5	72	103	0170	1	G
696	120 LISTER AVE.(DIOXIN), NEWARK, ESSEX CO.	404507	740815	2.5	72	0103	0130	1	G
501	CENTRAL STEEL DRUM, NEWARK, ESSEX CO.	404330	740752	1.2	1	130	3070	0	
57	ASHLAND CHEM., NEWARK, ESSEX CO.	404353	740749	0.9	53	130	3072	1	
1066	S & Z CONCRETE, NORTH ARLINGTON, BERGEN CO.	404635	740745	3.9	53	0103	0	1	B
418	INLAND CHEM., NEWARK, ESSEX CO.	404302	740733	0.6	00	3070	0	9	
551	SUNMARK IND., NEWARK, ESSEX CO.	404301	740733	0.6	63	130	3070	9	
602	TEXACO TERMINAL, NEWARK, ESSEX CO.	404225	740716	1.0	53	130	3072	9	
1303	DRIVERS POINT, JERSEY CITY, HUDSON CO.	404246	740654	0.7	39	0101	0130	1	A
519	SYNCON RESINS, KEARNY, HUDSON CO.	404416	740648	1.2	00	100	3070	1	G
513	ROOSEVELT DRIVE-IN (DAYLIN/GRACE), JERSEY CITY, HUDSON CO.	404352	740608	0.8	39	103	101	5	B
630	MOBAY CHEMICAL CORP., BAYONNE CITY, HUDSON CO.	404117	740607	2.4	00	103	0	9	
1304	ROUTE 185, JERSEY CITY, HUDSON CO.	404110	740603	2.5	39	0130	0101	1	B
387	PSE&G, KEARNY, HUDSON CO.	404416	740550	1.5	38	130	3070	0	
786	ENGLER INSTRUMENTS, JERSEY CITY, HUDSON CO.	404256	740543	1.1	35	0103	3050	1	B
508	STANDARD CHLORINE, KEARNY, HUDSON CO.	404456	740535	2.3	39	103	101	0	
572	TEXTILE PROOFERS, JERSEY CITY, HUDSON CO.	404250	740531	1.3	63	0103	3050	1	B
737	PJP LANDFILL, JERSEY CITY, HUDSON CO.	404127	740506	2.6	58	103	101	9	
578	CONRAIL SECAUCUS, HUDSON CO.	404600	740457	3.6	1	103	102	1	
471	KOPPERS, KEARNY, HUDSON CO.	404447	740449	2.5	1	103	130	9	
605	GARFIELD AVE., 880, JERSEY CITY, HUDSON CO.	404208	740413	2.5	39	103	102	1	
457	DIAMOND SHAMROCK, S. KEARNY, HUDSON CO.	404504	740410	3.0	35	103	101	1	
770	COLUMBIA PAINT, INC., JERSEY CITY, HUDSON CO.	404215	740354	2.6	00	0103	0112	1	B
636	SQUARE D CO., SECAUCUS, BERGEN CO.	404645	740350	4.5	00	0110	3070	1	B
605	PITTSTON PETROLEUM, JERSEY CITY, HUDSON CO.	404147	740258	3.8	53	103	101	8	
766	CARNIVAL SPRAYING CO., INC. HOBOKEN, HUDSON CO.	404452	740215	4.5	63	0103	0100	1	B
542	CONRAIL YARD, HOBOKEN, HUDSON CO.	404408	740214	4.2	52	103	110	1	

Number of Observations: 46

MAP 7-4

MAP 7-5

Page 1 of NJDS CASE INDEX SITES WITHIN 5.0 MILES OF 404314 LAT. 740602 LON. AS OF 12/22/87 (IN ORDER BY SITE NUMBER) - 05/23/88

SITENUM	NAME	LAT	LON	DISTANCE	CONTAM	PHCODE1	PHCODE2	STATUS1	STATUS2
57	ASHLAND CHEM., NEWARK, ESSEX CO.	404333	740749	0.7	53	100	3070	1	
325	FRONTAGE ROAD DRUM DUMP, NEWARK, ESSEX CO.	404220	740555	2.6	1	0100	0	1	6
380	FREDG, KEARNY, HUDSON CO.	404415	740550	1.5	38	130	3070	0	
410	[illegible] CHEM., NEWARK, ESSEX CO.	404302	740733	0.6	00	3070	0	9	
416	ALBERT STEEL DRUM/ PRENTISS DRUG, NEWARK, ESSEX CO. (DIOXIN)	404314	740943	0.3	72	103	103	1	6
417	TROY CHEM., NEWARK, ESSEX CO.	404323	740624	[illegible]	53	130	3070	1	
455	DIAMOND SHAMROCK, S. KEARNY, HUDSON CO.	404504	740410	3.2	35	103	101	1	
456	CONRAIL-MEADOWS YARD, KEARNY, HUDSON CO.	404439	740545	2.3	52	101	130	1	
471	KOPPERS, KEARNY, HUDSON CO.	404447	740449	2.3	1	103	130	9	
512	ROOSEVELT DRIVE-IN (DAYLIN/GRACE), JERSEY CITY, HUDSON CO.	404252	740606	0.6	39	103	101	5	8
519	SYNCON RESINS, KEARNY, HUDSON CO.	404416	740546	1.2	00	100	3070	1	6
538	J.L. ARMITAGE + CO., NEWARK, ESSEX CO.	404316	741013	2.9	0	130	3070	1	
548	CONRAIL YARD, HOBOKEN, HUDSON CO.	404406	740214	4.2	52	103	110	1	
551	SUNMARK IND., NEWARK, ESSEX CO.	404302	740733	0.6	63	130	3070	9	
555	CENTRAL STEEL DRUM, NEWARK, ESSEX CO.	404230	740752	1.2	1	130	3070	0	
578	CONRAIL SECAUCUS, HUDSON CO.	404600	740457	3.6	1	103	102	1	
593	FEDERATED METALS, NEWARK, ESSEX CO.	404327	740833	1.5	0	130	3070	4	
603	TEXACO TERMINAL, NEWARK, ESSEX CO.	404225	740712	1.0	53	130	3070	9	
605	PITTSTON PETROLEUM, JERSEY CITY, HUDSON CO.	404147	740226	4.6	53	103	101	8	
608	STANDARD CHLORINE, KEARNY, HUDSON CO.	404456	740533	2.3	39	103	101	0	
609	GARFIELD AVE., 660, JERSEY CITY, HUDSON CO.	404228	740413	2.5	39	103	102	1	
630	MOBAY CHEMICAL CORP., BAYONNE CITY, HUDSON CO.	404117	740603	3.4	00	103	0	9	
675	80 LISTER AVENUE, NEWARK, (DIOXIN CASE), ESSEX CO.	404507	740815	2.5	72	103	0130	1	5
676	120 LISTER AVE (DIOXIN), NEWARK, ESSEX CO.	404507	740815	2.5	72	0103	0130	1	0
693	J.T. BAKER, PHILLIPSBURG, WARREN CO.	404129	741126	4.5	00	1501	2010	1	4
702	HARRISON COAL GAS SITE, HUDSON CO.	404422	740901	2.5	70	0130	3070	1	0
708	KAPKOWSKI RD. LANDFILL, ELIZABETH, UNION CO.	404040	741000	4.8	50	100	3070	0	
733	PJP LANDFILL, JERSEY CITY, HUDSON CO.	404127	740305	[illegible]	55	103	101	9	
766	CARNIVAL SPRAYING CO., INC. HOBOKEN, HUDSON CO.	404455	740213	4.5	63	0103	0130	1	8
770	COLUMBIA PAINT, INC., JERSEY CITY, HUDSON CO.	404015	740350	3.7	00	0103	0110	1	5
786	[illegible] INSTRUMENTS, JERSEY CITY, HUDSON CO.	404358	740547	1.1	35	0103	3070	1	[illegible]
791	GENERAL ELECTRIC CO-NEWARK LAMP PLANT	404347	741105	4.2	00	0103	3070	1	[illegible]
792	GEORGIA-PACIFIC CORP.-[illegible], NEWARK, ESSEX CO.	404550	740440	[illegible]	00	0110	3070	1	5
793	GEORGIA-PACIFIC CORP-POLYMER MATE., NEWARK, ESSEX CO.	404302	740448	[illegible]	00	0170	3070	1	8
796	J & R METALLIZING CO, INC., NEWARK, ESSEX CO.	404030	741017	3.0	00	0110	3070	1	8
817	MOLDEX, INC - ELIZABETH PLANT, UNION CO.	403937	740732	4.5	00	0103	0103	1	5
835	[illegible], BERGEN CO.	404649	740050	4.7	00	0110	3070	1	8
872	TEXTILE PROCESSORS, JERSEY CITY, HUDSON CO.	404250	740531	1.0	63	0103	3070	1	8
890	[illegible], NEWARK, ESSEX CO.	404305	740745	1.0	00	0110		1	[illegible]
1086	[illegible] CONCRETE, NORTH ARLINGTON, BERGEN CO.	404635	740745	3.9	53	0103	0	1	8
1163	OAK ISLAND-CONRAIL TERMINAL, NEWARK, ESSEX CO.	404247	740838	1.9	52			3	
1192	FRANKLIN PLASTICS, KEARNY, HUDSON CO.	404525	740945	3.5	34	2100	3070	1	8
1248	DUNCAN & GREEN, KEARNY, HUDSON CO.	404515	740630	2.7	53	0130	0101	1	0
1303	DROYERS POINT, JERSEY CITY, HUDSON CO.	404240	740234	3.7	77	0101	0130	1	4
1304	ROUTE 440, JERSEY CITY, HUDSON CO.	404110	740603	2.5	39	0103	0104	1	8
1321	J.F. HENRY CHEMICAL CO., NEWARK, ESSEX CO.	404210	741135	1.7	63	0110	3070	1	5

Number of Observations: 46

BASF CORPORATION CHEMICAL DIVISION
50 CENTRAL AVENUE
KEARNY, NJ 07032

BASF

January 16, 1986

Mr. Frank Coolick, Chief
Bureau of Hazardous Waste Engineering
New Jersey Dept. of Environmental
Protection
32 E. Hanover Street
Trenton, NJ 08625

Re: Change of Ownership Badische Corporation, Kearny
EPA I.D. No. NJD046941530

Dear Mr. Coolick:

In response to your letter dated 20 Dec 1985 and received at Kearny on December 26, 1985, enclosed is a revised Part A permit application and an alternative information statement (AIS) for BASF Corporation's Kearny, NJ facility.

In order to ensure that your files are accurate the following comments are pertinent:

- Your letter of 20 Dec 1985 referenced EPA ID No. 064332273 this is incorrect. The correct number for the Kearny facility is EPA ID No. NJD046941530.
- When Badische Corporation merged into Inmont Corporation the result was the formation of a new company called BASF Corporation.
- As indicated in the AIS there has been no change in the ultimate ownership of the facility. It remains 100% owned by BASF Aktiengellshaft.

If you require any additional information contact the undersigned at 201-578-2349.

Sincerely,

John R. Walenten
Environmental Administrator

:dd
Enclosure

Form Approved OMB No. 158-R0175

FORM 1 GENERAL

EPA

ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: F N J D 0 4 6 9 4 1 5 3 0

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which asks for additional information). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

LABEL ITEMS

EPA I.D. NUMBER

FACILITY NAME

FACILITY MAILING ADDRESS

FACILITY LOCATION

NJD046941530

BADISCHE CORPORATION

50 CENTRAL AVENUE
KEARNY, NJ 07032

50 CENTRAL AVENUE
KEARNY, NJ 07032

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK "X" YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X	
B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)	X		
D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		X
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	
J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP: Badische Corporation

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title)	B. PHONE (area code & no.)
2 Walenten John Environmental Ad	201 589 1600

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX			
3 50 Central Avenue			
B. CITY OR TOWN	**C. STATE**	**D. ZIP CODE**	
4 Kearny	NJ	07032	

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER			
5 50 Central Avenue			
B. COUNTY NAME			
dson			
C. CITY OR TOWN	**D. STATE**	**E. ZIP CODE**	**F. COUNTY CODE (if known)**
6 Kearny	NJ	07032	

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
2869 Industrial Organic Chemicals	

C. THIRD	D. FOURTH

VIII. OPERATOR INFORMATION

A. NAME

Badische Corporation

B. Is the name listed in Item VIII-A also the owner? ☒ YES ☐ NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)

F = FEDERAL M = PUBLIC (other than federal or state) S = STATE O = OTHER (specify) P = PRIVATE

P (specify)

D. PHONE (area code & no.)

804 887 6000

E. STREET OR P.O. BOX

P. O. Drawer D

F. CITY OR TOWN	G. STATE	H. ZIP CODE
Williamsburg	VA	23187

IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES ☒ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)	D. PSD (Air Emissions from Proposed Sources)
9 N NJ0001112	9 P

B. UIC (Underground Injection of Fluids)	E. OTHER (specify)
9 U	(specify) See Attachment 1-1

C. RCRA (Hazardous Wastes)	E. OTHER (specify)
9 R NJD046941530	(specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must sho the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous was treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surfa water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

Manufacture of industrial chemicals (phthalic anhydride), and esters of phthalic anhydride.

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitti false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
A.G. Mueller General Manager	A.G. Mueller	7-16-85

COMMENTS FOR OFFICIAL USE ONLY

BEP/PWW TANK FARM

Iten No.	Equipment	NJDEP Cert. No.
TK-101	Butanol Storage Tank	45109
TK-103	Isodecanol Storage Tank	45110
TK-104	6-10 Alcohol Storage Tank	45111
TK-120	6-10 Phthalate Storage Tank	45112
TK-121	DBP Storage Tank	45113
TK-122	DIDP Storage Tank	45114
TK-123	DOA Storage Tank	45115
TK-124	BOP Storage Tank	45116
TK-125	Trimellitate Storage Tank	45117
TK-126	Ester Mix Tank	45118
S-201	Adipic Acid Silo	45133
H-202	Trimellitate Anhydride Hopper	45134
D-203	PA Day Tank	45119
TK-901	Aqueous Waste Storage	47841
TK-902	Organic Waste Storage	47840

BEP PROCESSING

Item No.	Equipment	NJDEP Cert. No.
CY-320	Product Separator	45136
D-303	Water Hold Drum	45120
D-305	Alcohol Hold Drum	45121
D-306A	Phthalate/Alcohol Hold Drum	45122
D-306C	DIDP Alcohol Hold Drum	45123
D-306D	DOA Alcohol Hold Drum	45124
D-307A	BOP Alcohol Hold Drum	45125
D-307B	DBP Alcohol Hold Drum	45126
D-307C	Trimellitate Alcohol Hold Drum	45127
D-312	Ester Water Separator	45128
D-320	Filtrate Hold Drum	45129
D-328	Alkaline Wash Drum	45131
D-433	Lights Separator Drum	45132
J-301	Vacuum Jet System	45135
FH-430	Hot Oil Heater	45670
R-301	Reactor	45137
R-330	Washer/Stripper	45138
Y-901	PWD INCINERATOR	47839

A

FORM 1
ATTACHMENT 1-1
AIR PERMITS

DOP TANK FARM

Item No.	Equipment	NJDEP Cert. No.
MF-713	Decanol Storage Tank	4327
MF-706	DOP Day Tank	4329
MF-707	DOP Day Tank	4330
MF-512	DOP Storage Tank	4331
MF-712	DOP Storage Tank	4328
MF-508	2EH Storage Tank	4332
MF-506	DOP Day Tank	4333
MF-507	DOP Day Tank	4334
MF-714A	Waste Org. Tank	4336
MF-714B	Waste Org. Tank	4337
MF-513	DOP Day Tank	49840
MF-715	2EH	49841
TK-903	DOP Liquid Waste Tank	49843

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DOP PROCESSING

Item No.	Equipment	NJDEP Cert. No.
MS-311	2EH Sep. Tank	4338
MS-318	DOP Sep. Vessel	4339
MR-321	DOP Mix Vessel	4340
MR-372	DOP Mix Vessel	4341
MS-333	DOP Separt. Vessel	4342
GF-349	Funda Filter	4343
GF-350	Funda Filter	4344
MS-361,2	Separating Vessels	4347
MM-2	Seal Pot	4348
MR-350	Carbon Mix TK	4350
MS-351	DOP Tank	4351
PE-312	Condensing Jet	49842
HS-301	Hot Oil Heater	49844
HS-201	Hot Oil Heater	61529

PAA TANK FARM

Item No.	Equpment	NJDEP Cert. No.
MF-501	No. 6 Fuel Oil Tank	4335
MF-502	Orthoxylene Tank	3861
MF-503	Storage Tank	31435
MF-504	Storage Tank	31436
MF-505	Storage Tank	31437
MF-511B	Refined PA Tank	49839
RR Loading	PA Vent Box	51382

PAA PROCESSING

Item No.	Equipment	NJDEP Cert. No.
HS-103	PAA Incinerator	4457
MF-108A	Crude Tank	5416
MF-108B	Crude Tank	5417
Hotwell	WW Seal Tank	5421
MS-107	Tail Gas Scrubber	8006
MS-207A	Storage Tank	31433
MS-207B	Storage Tank	31434

FORM 1
ATTACHMENT 1-1
AIR PERMITS

MISC. SERVICES

Item No.	Equipment	NJDEP Cert. No.
	Boiler	8103

A

(fill-in areas are spaced for elite type, i.e., 12 characters/inch). Form Approved OMB No. 158-S80004

FORM 3 RCRA

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
HAZARDOUS WASTE PERMIT APPLICATION
Consolidated Permits Program
(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER

F NJD046941530 1

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

☐ 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)*

8 | YR. | MO. | DAY | FOR EXISTING FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

☐ 2. NEW FACILITY *(Complete item below.)*

YR. | MO. | DAY | FOR NEW FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR IS EXPECTED TO BEGIN

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

☒ 1. FACILITY HAS INTERIM STATUS

☐ 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES – CODES AND DESIGN CAPACITIES

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process *(including its design capacity)* in the space provided on the form *(Item III-C)*.

B. PROCESS DESIGN CAPACITY – For each code entered in column A enter the capacity of the process.
1. AMOUNT – Enter the amount.
2. UNIT OF MEASURE – For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	Q
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below)*: A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

C | DUP | 1

LINE NUMBER	A. PROCESS CODE (from list above)	B. 1. AMOUNT (specify)	B. 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. 1. AMOUNT	B. 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1	S 0 1	11,000	G		7				
	T 0 3	0.65	D		8				
	T 0 3	0.65	D		9				
4					10				

A

Continued from the front.

III. PROCESSES (continued)

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

Section III. (Page 1 of 5), Line 3, reflects an existing incinerator which is not treating hazardous wastes. However, Badische wishes to include it as a "proposed" process for potential future use.

IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER – Enter the four–digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four–digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY – For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non–listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE – For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:
   For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.
   For non–listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non–listed hazardous wastes that possess that characteristic or toxic contaminant.
   Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non–listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
X-1	K054	900	P	T03 D80	
X-2	D002	400	P	T03 D80	
X-3	D001	100	P	T03 D80	
X-4	D002				included with above

...ued from page 2.
... Photocopy this page before completing if ... more than 26 wastes to list.

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EPA I.D. NUMBER (enter from page 1)

N	J	D	0	4	6	9	4	1	5	3	0		1

FOR OFFICIAL USE ONLY

	W	D	U	P									2	D	U	P

V. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (If a code is not entered in D(1))
1	K093	180	T	T03	
2	K094	180	T	T03	
3	D001	800	T	T03	
4	D001	800	T	T03	
5	X900	40	T	S01	
6	U190	100	T	S01	
7	U028	1.5	T	S01	
8	U069				Included with above
9	X725	6.6	T	S01	
10					
11					
12					
13					
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26					

EPA Form 3510-3 (6-80)

CONTINUE ON REVERSE

A

ontinued from the front.

V. DESCRIPTION OF HAZARDOUS WASTES (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

EPA I.D. NO. (enter from page 1)

F	N	J	D	0	4	6	9	4	1	5	3	0		6

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail)*.

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground—level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail)*.

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)	LONGITUDE (degrees, minutes, & seconds)
40 43 01 5	074 07 00 5

VIII. FACILITY OWNER

☒ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. (area code & no.)
E	

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
F	G		

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
A.G. Mueller General Manager	A.G. Mueller	7-16-85

X. OPERATOR CERTIFICATION

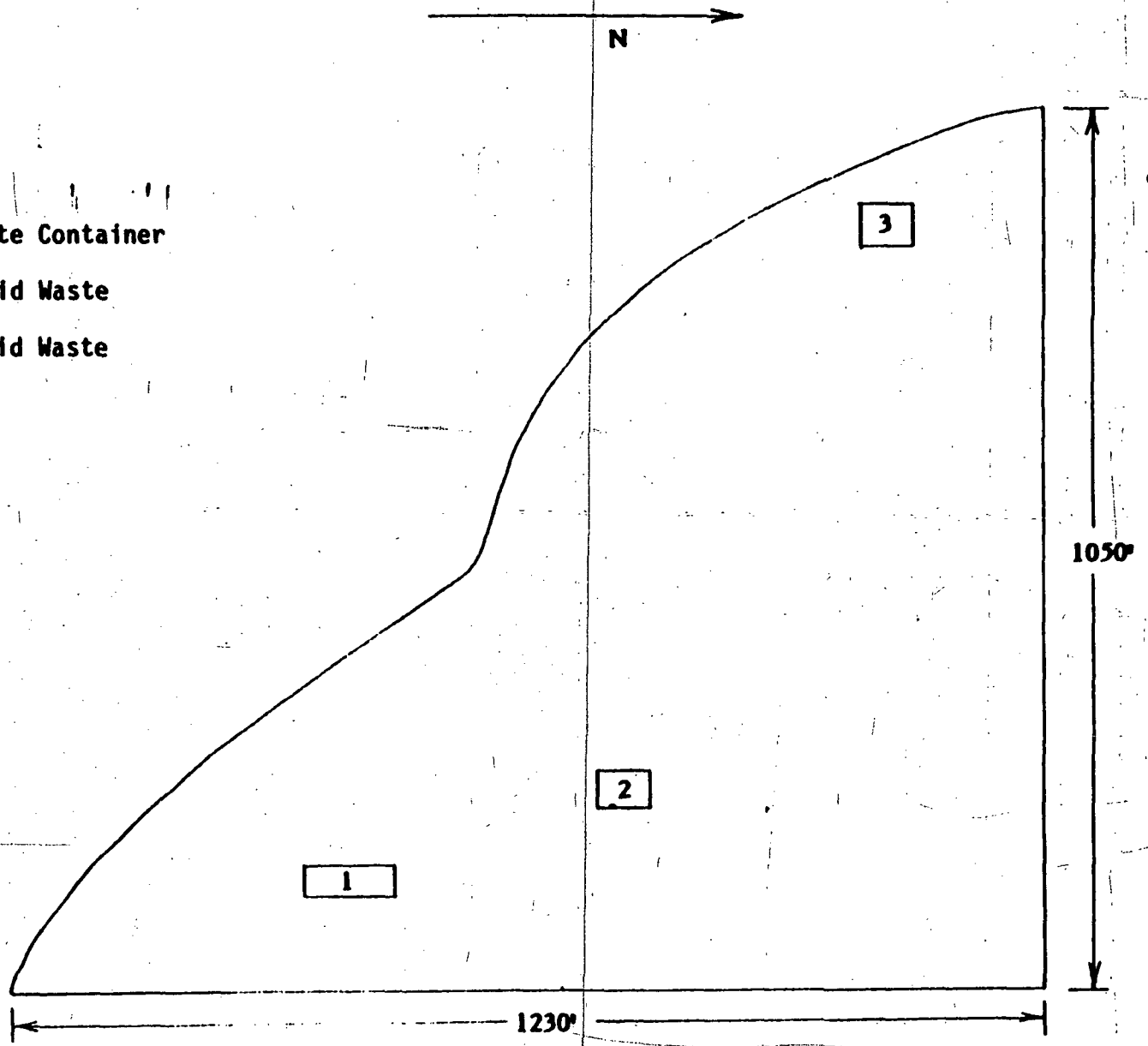
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
A.G. Mueller General Manager	A.G. Mueller	7-16-85

Continued from page 4

SITE DRAWING

1. Hazardous-waste Container Storage Unit
2. Existing Liquid Waste Incinerator
3. Proposed Liquid Waste Incinerator



SCALE: 1 inch = 20 feet

Part B

2.0 FACILITY DESCRIPTION (N.J.A.C. 7:26-12.2(e)1.)

2.1 General Information

This section provides a general description of Badische's hazardous waste management facility. This description is intended to acquaint the permit application reviewer/permit writer with the facility operation. More complete details can be found in other parts of this permit application.

The plant facility owned and operated by Badische Corporation is located in Hudson County, New Jersey, on approximately 25 acres. It is situated within the city limits of Kearny, which is part of the greater Newark area. The complete mailing address is:

Badische Corporation
50 Central Avenue
Kearny, New Jersey 07032

2.2 Hazardous Waste Management Units

The Badische/Kearny hazardous waste management (HWM) facility consists of the following units:

- A 1435-ft^2 container-storage unit for ultimate off-site disposal.
- A liquid-injection John Zink incinerator (PAA incinerator) for treatment of phthalic anhydride distillation residues, DOP lights, and MX Organics (see Section 3.0 for waste characterizations).
- A liquid-injection Trane incinerator (PWW incinerator) for backup treatment of the three hazardous wastes currently going to the PAA unit.

The container-storage and PAA units have been in operation since 1981 and 1971, respectively. The design and operation of each of these units is described in detail in Section 4.0 (Process Information). The PWW incinerator appears on the RCRA Part A permit application as a "proposed unit". It has never been used to manage

Attachment B

hazardous wastes, but Badische has elected to keep it "in the system" for possible future use.

2.3 Wastes and Waste-Generating Processes

Badische/Kearny produces phthalic anhydride (PAA) by catalyzed vapor-phase oxidation of o-xylene. The phthalic anhydride is purified by distillation, and then esterified by various processes to produce the following phthalate esters:

- Bis(2-ethylhexyl) phthalate
- Di-n-butyl phthalate
- Butyl octyl phthalate
- Di-isodecyl phthalate

In the course of production and other general plant activities (i.e., maintenance), the following hazardous wastes are generated at Badische:

Sources	NJDEP Hazardous Waste Number	NJDEP Process Code(s)	Generation Rate (Tons/yr.)
Production processes:			
DOP lights	D001	T03	800
Spent catalyst	X900	S01	40
MX Organics	X900	T03	800
PAA spill residue	U190	S01	100
PAA distillation residue	K094	S01, T03	180
PAA distillation lights	K093	S01, T03	180
Phthalate ester spill residue	U028, U069	S01	1.5
Maintenance processes:			
Oil sludge	X725	S01	6.6

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3.0 WASTE CHARACTERISTICS AND WASTE ANALYSIS PLAN (N.J.A.C. 7:26 - 9.4(b) 1., 2., & 3., and 12.2(e) 2. & 4.)

3.1 Introduction

This section describes the chemical and physical nature of the hazardous wastes stored and treated at the Badische/Kearny facility. It also includes the Waste Analysis Plan for ongoing sampling, testing, and evaluating of the wastes. This information is necessary to ensure that sufficient information is available to safely manage the wastes.

3.2 Chemical and Physical Analyses (7:26-9.4(b) 1. i. and ii.)

The Badische/Kearny plant is a manufacturer of phthalic anhydride and phthalate esters. Hazardous wastes generated as a result of these activities are:

Incinerated Wastes:

- DOP lights
- PAA distillation residue
- MX Organics

Containerized Wastes:

- Spent catalyst
- PAA spill residue
- Phthalate ester spill residue
- Oil Sludge

A brief narrative description of each of these waste streams is provided on pages 3-3 through 3-5. Descriptive information for each waste is presented in tabular form in Table 3-1.

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TABLE 3-1 HAZARDOUS WASTE CHARACTERIZATIONS

Hazardous Waste	Physical State	Hazardous Characteristics	Analytical Parameters	Basis for Hazard Designation
DOP lights	Liquid	Ignitability	Flash point, heat value, viscosity, EP metals, % bis (2-ethylhexyl) phthalate	EPA Hazardous Waste Number D001 (Flash point is 78 - 118°F)
PAA distillation residue	Solid	Toxicity	% Phthalic anhydride, heat value, EP metals	EPA listed as K093 and K094
MX Organics	Liquid	Toxicity	Flash point, heat value, viscosity, EP metals, % di-n-butyl phthalate, % bis (2 - ethylhexyl) phthalate, % phthalic acid esters, N.O.S.	EPA Hazardous Waste Number D001 (Flash point is 120-220°F)
Spent catalyst	Solid	Toxicity	Vanadium pentoxide*	NJDEP listed as X900
PAA spill residue	Solid	Toxicity	% Phthalic anhydride	EPA listed as U190
Phthalate ester spill residue	Solid	Toxicity	% bis (2-ethyhexyl) phthalate or % di-n-butyl phthalate	EPA listed as U028 or U069
Oil sludge	Solid/liquid	Toxicity	(None required)	NJDEP listed as X725

* Due to the proprietary composition of the catalyst, Badische is not providing data as to the exact level of this parameter.

3.2.1 Incinerated Wastes

DOP Lights

The waste identified as DOP lights is classified as a hazardous waste due to its characteristic ignitability (D001).* The waste is liquid in form and is lighter than water. A detailed chemical and physical analysis of a representative sample of the waste is provided in Attachment 3-1 (p. A-3-1-1).

PAA Distillation Residue

The waste identified as PAA distillation residue is a mixture of listed hazardous wastes having the EPA ID Numbers K093 and K094. K093 is a "specific source" hazardous waste and is described as "distillation light ends from the production of phthalic anhydride from ortho-xylene" in 40 CFR 261.32. K094 is a "specific source" hazardous waste and is described as "distillation bottoms from the production of phthalic anhydride from ortho-xylene" in 40 CFR 261.32. The waste is solid at room temperature, and is considered hazardous due to its toxicity. A detailed chemical and physical analysis of a representative sample of the waste is provided in Attachment 3-1 (p. A-3-1-2).

MX Organics

The waste identified as MX Organics is classified as a hazardous waste due to its characteristic ignitability (D001)*. This waste is liquid in form and is lighter than water. Hazardous constituents of concern (e.g., the constituents listed in N.J.A.C. 7:26-8.16) are: di-n-butyl phthalate; bis(2-ethylhexyl) phthalate; and phthalic acid esters, N.O.S. A detailed chemical and physical analysis of a representative sample of the waste is provided in Attachment 3-1 (p. A-3-1-3).

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* Due to interference from the organic matrix, the detection limit (D.L.) for Selenium in this waste is 2 ppm. This is above the maximum EP Toxicity concentration of 1.0 ppm (40 CFR 261.24). Hence, the waste might also have the Hazardous Waste Number D010. However, Badische has no reason to suspect the presence of Selenium in the waste.

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3.2.2 Containerized Wastes

Spent Catalyst

The waste identified as spent catalyst has the New Jersey Hazardous Waste Number X900. The waste is solid in form and is considered hazardous due to its toxicity. The hazardous constituent of concern (e.g., the constituent listed in N.J.A.C. 7:26-8.16) is Vanadium pentoxide. It is containerized and shipped to an EPA-approved disposal facility. Information as to the chemical makeup of the waste is provided in Attachment 3-2 (p. A-3-2-1).

PAA Spill Residue

The waste identified as PAA spill residue (phthalic anhydride) is a listed hazardous waste having the EPA ID Number U190. The waste is the spill residue of a commercial chemical product as listed in 40 CFR 261.33(f). The waste is solid in form and is considered hazardous due to its toxicity. It is containerized and shipped to an EPA-approved disposal facility. At present, Badische has none of this waste on site, and therefore is unable to provide a detailed chemical and physical analysis. When the waste is generated, it will be characterized in accordance with Attachment 3-2 (p. A-3-2-2).

Phthalate Ester Spill Residues

The wastes identified as phthalate ester spill residues are hazardous wastes due to the presence of listed hazardous wastes having the EPA ID Numbers U028 and U069. The wastes are the spill residues of commercial chemical products bis (2-ethyhexyl) phthalate ester, and dibutyl phthalate ester, respectively, as listed in 40 CFR 261.33(f). The wastes are solid in form and are considered hazardous due to toxicity. They are containerized and shipped to an EPA-approved disposal facility. At present, Badische has none of these wastes on site, and therefore is unable to provide detailed chemical and physical analyses. When the wastes are generated, they will be characterized in accordance with Attachment 3-2 (pp. A-3-2-3 & A-3-2-4).

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Oil Sludge

The waste identified as oil sludge is a listed hazardous waste having the New Jersey Hazardous Waste Number X725. X725 is identified as "Oil spill cleanup residue which: A) is contaminated beyond saturation; or B) the generator fails to demonstrate that the material was not one of the listed hazardous waste oils" (e.g., as listed in N.J.A.C. 7:26-8.13). The waste is solid in form with some free liquids, and is considered hazardous due to toxicity. Badische manages the material as a hazardous waste and, therefore, no analyses are required. The waste is manifested and shipped to an EPA-approved disposal facility.

3.3 Waste Analysis Plan (7:26-9.4(b)2.)

3.3.1 Parameters and Rationale (7:26-9.4(b)2.i.)

Table 3-2 provides a list of parameters chosen for waste analysis and the rationale for their selection.

3.3.2 Test Methods (7:26-9.4(b)2.ii.)

Table 3-3 provides a description of the test methods used to analyze for the chosen parameters. "SW-846" refers to "Test Methods for Evaluating Solid Waste", 2nd Edition, U.S. Environmental Protection Agency, SW-846.

3.3.3 Sampling Methods (7:26-9.4(b)2.iii.)

Table 3-4 provides a list of the sampling methods used to obtain a representative sample of each waste to be analyzed. "SW-846" refers to "Test Methods for Evaluating Solid Waste", 2nd Edition, U.S. Environmental Protection Agency, SW-846.

3.3.4 Frequency of Analysis/Review (7:26-9.4(b)2.iv.)

Table 3-5 indicates the frequencies at which the initial analyses will be repeated or reviewed.

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ATTACHMENT 3-1

ANALYTICAL INFORMATION/INCINERATED WASTE

HW Stream	DOP Lights
NJHW Number	D001 (and possibly D010*)
Heat Value	17,940 BTU/lb
Viscosity	32 SUS** @100°F
Flash Point	78 - 118°F
Metals (EP concentrations):	
Arsenic	< 2 ppm
Barium	< 50 ppm
Cadmium	< 1 ppm
Chromium	< 3 ppm
Lead	< 4 ppm
Mercury	< 0.2 ppm
Selenium	< 2 ppm
Silver	< 2 ppm
Hazardous Constituent:	
Bis (2-ethylhexyl) phthalate	1 gm/liter

* Due to interference from the organic matrix, the detection limit (D.L.) for Selenium in this waste is 2 ppm. This is above the maximum EP Toxicity concentration of 1.0 ppm (40 CFR 261.24). Hence, the waste might also have the Hazardous Waste Number D010. However, Badische has no reason to suspect the presence of Selenium in the waste.

** SUS - Saybolt Universal Seconds

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ATTACHMENT 3-1 (CONT'D.)

ANALYTICAL INFORMATION/INCINERATED WASTE

HW Stream	**PAA Distillation Residues**
NJHW Number	K093 & K094
Heat Value	9860 BTU/lb
Flash Point	None
Metals (EP Concentrations):	
Arsenic	< 0.1 ppm
Barium	< 0.5 ppm
Cadmium	< 0.02 ppm
Chromium	< 0.2 ppm
Lead	< 0.2 ppm
Mercury	< 0.01 ppm
Selenium	< 0.1 ppm
Silver	< 0.05 ppm
Hazardous Constituent:	
Phthalic anhydride	60%

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ATTACHMENT 3-1 (CONT'D.)

ANALYTICAL INFORMATION/INCINERATED WASTE

HW Stream	MX Organics
NJHW Number	D001 (and possibly D010*)
Heat Value	16,700 BTU/lb
Viscosity	43 SUS** @ 100°F
Flash Point	120-220°F
Metals (EP concentrations):	
Arsenic	< 2 ppm
Barium	< 50 ppm
Cadmium	< 1 ppm
Chromium	< 3 ppm
Lead	< 4 ppm
Mercury	< 0.2 ppm
Selenium	< 2 ppm
Silver	< 2 ppm
Hazardous Constituents:	
Di-n-butyl phthalate	9.4 g/liter
Bis (2-ethylhexyl) phthalate	24 g/liter
Phthalic Acid Esters, N.O.S.	4-14%

* Due to interference from the organic matrix, the detection limit (D.L.) for Selenium in this waste is 2 ppm. This is above the maximum EP Toxicity concentration of 1.0 ppm (40 CFR 261.24). Hence, the waste might also have the Hazardous Waste Number D010. However, Badische has no reason to suspect the presence of Selenium in the waste.

** Saybolt Universal Seconds

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ATTACHMENT 3-2

ANALYTICAL INFORMATION/CONTAINERIZED WASTE

HW Stream	**Spent Catalyst**
NJHW Number	X900
Hazardous Constituent:	
Vanadium pentoxide	Approximately 10,000 ppm*

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* Due to the proprietary composition of the catalyst, Badische is not providing data as to the exact level of this parameter.

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ATTACHMENT 3-2 (CONT'D.)

ANALYTICAL INFORMATION/CONTAINERIZED WASTE

HW Stream	**PAA Spill Residue**
NJHW Number	U190
Hazardous Constituent:	
% Phthalic anhydride	____*

* Waste not available for analysis.

B

ATTACHMENT 3-2 (CONT'D.)

ANALYTICAL INFORMATION/CONTAINERIZED WASTE

HW Stream	**Phthalate Ester Spill Residue (bis(2-ethyhexyl) phthalate)**
NJHW Number	U028
Hazardous Constituents:	
% Bis (2-ethylhexyl) phthalate ester	_____*

* Waste not available for analysis.

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ATTACHMENT 3-2 (CONT'D.)

ANALYTICAL INFORMATION/CONTAINERIZED WASTE

HW Stream	**Phthalate Ester Spill Residue (di-n-butyl phthalate)**
NJHW Number	U069
Hazardous Constituents:	
% Di-n-butyl phthalate ester	_____*

* Waste not available for analysis.

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The container storage unit has a total area of 1435 ft^2. This area is divided into: 264 ft^2 for ramp access; 4.7 ft^2 of sump area; 788 ft^2 for aisle space; and 378 ft^2 of actual storage space. Both a plan view and a section view of the container-storage unit are provided in Drawing CC-1002.

4.2.1 Description of Containers

All containerized hazardous wastes listed in Section 4.2 are stored in drums constructed of low carbon steel per U. S. Department of Transportation (DOT) Specification No. 17C. These containers provide a leak-proof environment when handled and managed properly. Specific items are inspected on a daily basis (i.e., condition of container(s), leaks, etc.) in an effort to detect possible problems in their early stages and to immediately clean up any spills or leaks that may have occurred. Section 5.3.3 describes the inspection schedule for containers. If any containers are found to be leaking or in poor condition, the remaining contents will be transferred to another container. Procedures outlined in Section 6.5.3 for container spills/releases will be followed.

Waste analyses provided in Section 3.0 (Waste Analysis Plan) indicate that there are no corrosive or reactive wastes managed at this facility which would warrant storage in a specially constructed or lined drum.

4.2.2 Management of Containers

Containers (drums) are filled and securely closed at the point(s) of waste generation. The drums are numbered and dated for identification, and labeled according to the DOT regulations for hazardous materials. Forklifts are used to transfer the drums on pallets to the container storage unit. This practice helps to minimize the possibility of a drum being ruptured or developing a leak during transfer. The Drum Storage Area - Inventory & Activity Log (Figure 4-2) allows Badische to keep track of: the drums of hazardous waste received; types of wastes; date received in storage; date removed from storage; and the manifest number of the shipment.

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4.0 PROCESS INFORMATION (N.J.A.C. 7:26-9.4(d), 7:26-10.4, 7:26-10.7, 7:26-12.2(e)3, 7:26-12.2(f)1. & 4., and 7:26-12.9(b))

4.1 Waste Management Process Descriptions 7:26-12.2(e)3

Hazardous wastes are generated by both production processes and plant maintenance operations. These wastes are managed by either onsite container storage or incineration. Those wastes stored in containers (approximately 1,750 tons annually) are ultimately shipped to offsite permitted facilities for disposal. Other wastes (i.e., PAA distillates, DOP lights, and MX organics) are treated by onsite incineration in the PAA incinerator. There is another (now dormant) incinerator on site, referred to as the PWW Incinerator. This unit is available for future onsite waste incineration, if and when Badische decides to re-commission its use. Figure 4-1 is a simplified process flow diagram which indicates points of waste generation, waste types, and associated waste management operations. This section includes:

- Design and operating information for the container storage unit.
- Design information for both the PWW and PAA incinerators.
- A trial burn plan for the PAA incinerator.
- A trial burn plan for the PWW incinerator.

4.2 Container Storage 7:26-9.4(d)

The container storage unit is located outdoors in the southeast area of the plant site. The unit is surrounded by a 6-ft. high chain-link fence, and the gates are locked at all times when waste transfer operations are not being conducted. The maximum inventory of containers in storage at any given time during the operating life of the unit is not expected to exceed 200 drums (11,000 gallons). Hazardous wastes stored in containers include: Spent catalyst from phthalic anhydride production; PAA spill residue; PAA distillates; phthalate ester spill residues; and oil sludges. There are no ignitable wastes stored in containers. Specific waste characteristics are provided in Section 3.0 (Waste Characteristics and Waste Analysis Plan). Since some of the wastes stored in containers contain free liquids, specific information is provided in this section for such containers.

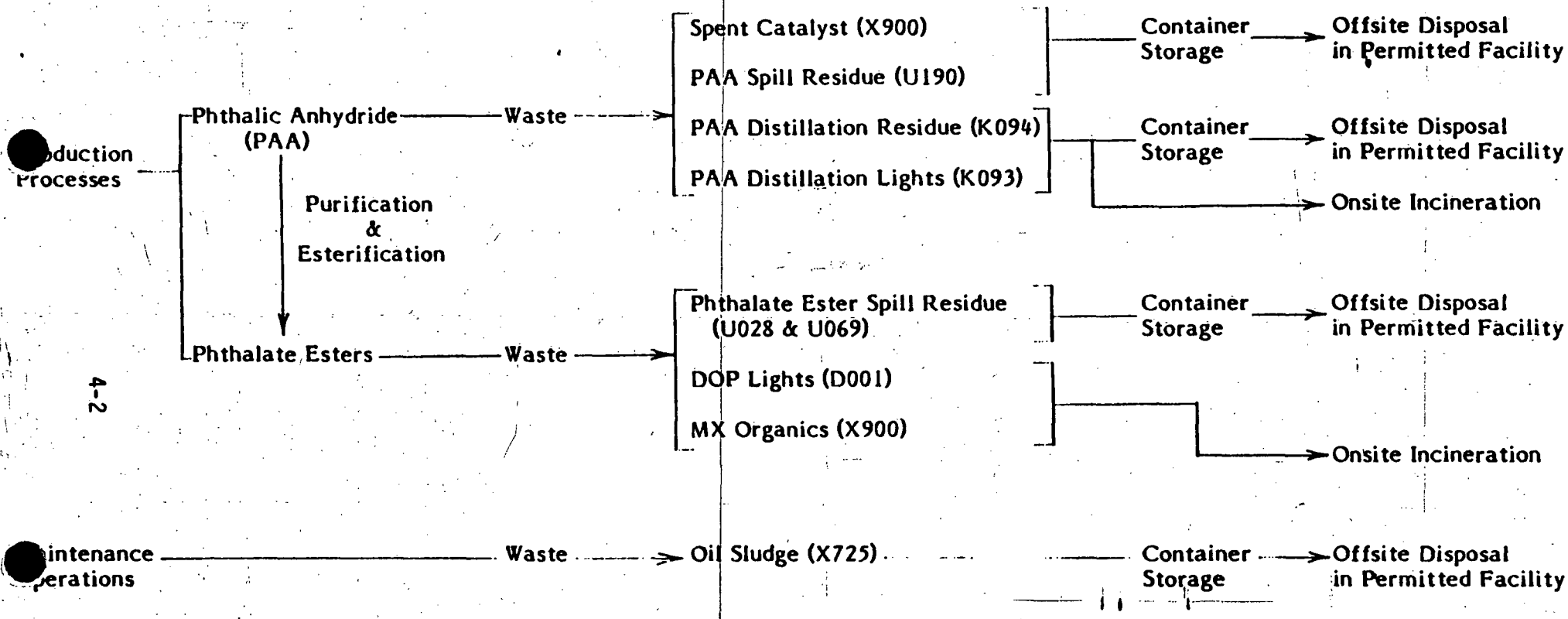

Figure 4-1 PROCESS FLOW DIAGRAM FOR HAZARDOUS WASTE OPERATIONS - BADISCHE

As stated above, containers are closed and secured prior to their transfer to the container-storage unit. Once they have been placed in storage, containers are not re-opened unless it becomes necessary to empty or transfer their contents. Containers are placed in the storage unit by waste type, and are arranged so that any identification markings (i.e., drum number and DOT hazard label) are visible. The drums are stored on pallets to elevate them from contact with standing liquids, and if necessary, they are stacked two high (8 ft.). An overall aisle space of 2 ft. is maintained at all times. There are no ignitable, reactive, or incompatible wastes managed in the container-storage unit.

Any containers of hazardous wastes which have had their contents removed are placed in recovery drums (e.g., "overpacks") and disposed of as hazardous wastes. There are no onsite facilities for rinsing hazardous waste residues from containers.

4.2.3 Secondary Containment System Design and Operation 7:26-10.4(b) & 7:26-12.2(f)1.

The container storage unit is constructed of a 6- inch thick concrete base designed for loads of 3000 lbs/in^2. A concrete curb ranging from 4 to 8 inches surrounds the perimeter of the pad (see Drawing CC-1002). The concrete base has a slope of approximately 1.5% towards the west side of the storage pad, where a 26-gallon concrete sump is located. Precipitation, and any spills or leaks that might occur, drain to the sump area where they are contained. This, along with the fact that the drums are stored on wooden pallets, prevents the containers from coming into contact with any standing liquids.

Both the concrete base and the sump area are in good condition. There are no visible holes, cracks, or gaps which would allow spilled or leaked wastes to escape outside the containment system. The concrete base is sufficiently impervious to contain liquids until collected and removed. Waste analyses (Section 3.0) indicate that the concrete pad is compatible with the wastes being stored in this unit.

The concrete pad provides a containment capacity (excluding the sump) of 4380 gallons, or approximately 40% of the total volume held by the estimated maximum

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inventory. This is well in excess of the 10% capacity required by N.J.A.C. 7:26-10.4(b)1.iv. Below are the calculations involved in determining the containment capacity:

1435 ft^2 - 264 ft^2 (ramp)= 1171 ft^2

1171 ft^2 x (6 inches*/12) ft x 7.48 gal/ft^3 = 4380 gal.

(4380 gallons/11,000 gallons) x 100 = 39.8%

*Note: 6 inches is the average curb height.

The land area immediately surrounding the container storage unit is relatively flat. The area is also graded and paved with asphalt to promote good drainage to the storm sewer drains. These features, plus the curbing of the unit itself, prevent run-on from entering the container-storage unit and its associated secondary containment system.

Inspections of both the containment area and the sump are conducted as outlined in Section 5.3.3 (Inspection Requirements for Specific Processes). Specific items associated with the secondary containment are inspected on a weekly basis, i.e., condition of base, sump area, and dike. The condition of containers is inspected daily, and the sump area is routinely inspected after heavy rainfall events. These actions ensure that accumulated precipitation and any spilled or leaked wastes are promptly removed in order to maintain the minimum required 10% containment capacity of the unit, and to minimize the possibility of any releases outside of the secondary containment system.

Whenever liquids are discovered in the sump area, responses are dependent on the scenario. These are as follows:

1) If liquids are observed in the sump after a heavy rainfall (and the inspector does not detect an odor, discoloration, or visible sheen in the sump), the drain valve is unlocked and opened to allow the liquids to drain to the storm sewer system.

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Liquids then flow through the onsite wastewater treatment plant prior to offsite discharge.

2) If liquids are observed in the sump following a heavy rainfall, and there is evidence of a leak/spill (i.e., container inspection reveals a leaking drum or there is a discoloration, odor, or sheen in the sump), a sample is taken from the sump and analyzed for the presence of organics. If the analyses reveal organic contamination, additional analytical steps will be taken to identify the constituents. The liquids within the sump will then be pumped into drums for transfer to the container-storage unit. After their contents have been adequately characterized, the drums will be shipped offsite for disposal as hazardous waste. If on the other hand, analyses indicate no appreciable contamination, the liquids will be allowed to drain to the storm sewer system as in Case #1.

3) If liquids are observed in the sump during dry-weather periods, this indicates the possibility of one or more leaking containers within the unit. After the leaking container(s) are handled as per procedures outlined in Section 6.5.3 (Emergency Procedures), the contents of the sump will be pumped into drums and transferred to the container storage unit. Since the waste characteristics of each drum are known prior to storage; drums are accurately identified and labeled as they are transferred into storage; and if the leakers are identified; there is no need to analyze the materials removed from the sump. An exception to this would be where different waste types have been co-mingled as a result of the spill/leak. If this is the case, analyses will be performed to adequately characterize the wastes. Once this is complete, the wastes will be managed as hazardous wastes.

4.3 PWW Incinerator Process Description

4.3.1 Introduction

The PWW incinerator was purchased in 1981 from Trane Thermal Company, and was constructed in the same year. The unit is not currently managing hazardous wastes, and to date has seen only limited non-hazardous waste service. The PWW Incinerator consists of a downfired combustion chamber, a quench tank, and an offgas cleaning system for particulate removal. It was originally designed for the incineration of specific organic and aqueous wastes; however, these wastes are no longer produced at the Kearny facility, and therefore the unit remains off-line.

The following section provides a detailed explanation of the engineering design and operational characteristics of the PWW Incinerator, as originally installed. This

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design offers complete flexibility for conversion to other services, while still attaining maximum combusion, destruction, and removal efficiencies for other hazardous wastes produced onsite. Since Badische may at some future time bring this unit back into hazardous waste service, a draft trial burn plan has been prepared for this unit. This plan is provided in Section 4.6.

4.3.2 Engineering Description of the PWW Incinerator

4.3.2.1 General Process Description

As shown in Figure 4-2A, incineration takes place in a vertical cylindrical chamber. A Trane Thermal LV-18 Vortex Burner is installed at the top of the incinerator for the burning of both #6 fuel oil and the hazardous waste feeds. The heat released from the burning of this fuel is utilized to incinerate the feed waste. The fuel is injected through the burner via a heated, air-atomized S.A.R. nozzle. The feed waste is injected downstream of the burner via four air-atomized S.A.R. nozzles, with combustion air fed to each nozzle. Flow and temperature signals are integral to the control of the Vortex Burner to maintain proper heat input and incineration temperature.

In the oxidation chamber, the organics are converted to carbon dioxide and water. The salts which are formed during the incineration become molten and flow down the walls of the chamber. They then pass the flue gases in a co-current fashion through the quench tank downcomer, into a Thermal Sub-X Quench Tank. Both the gases and salts exit the downcomer below the quench water, thus transferring the heat of combustion to the water. Approximately 85% (by weight) of the solidified salt particles are also scrubbed out of the gases via the Quench Tank's low-concentration acid/salt solution. The flue gases reach thermal equilibrium with the water, and exit the Quench Tank at approximately 190°F.

The gaseous effluent from the Quench Tank enters the Venturi Scrubber, which removes the residual inorganic particulate matter. Part of the scrubber liquid is

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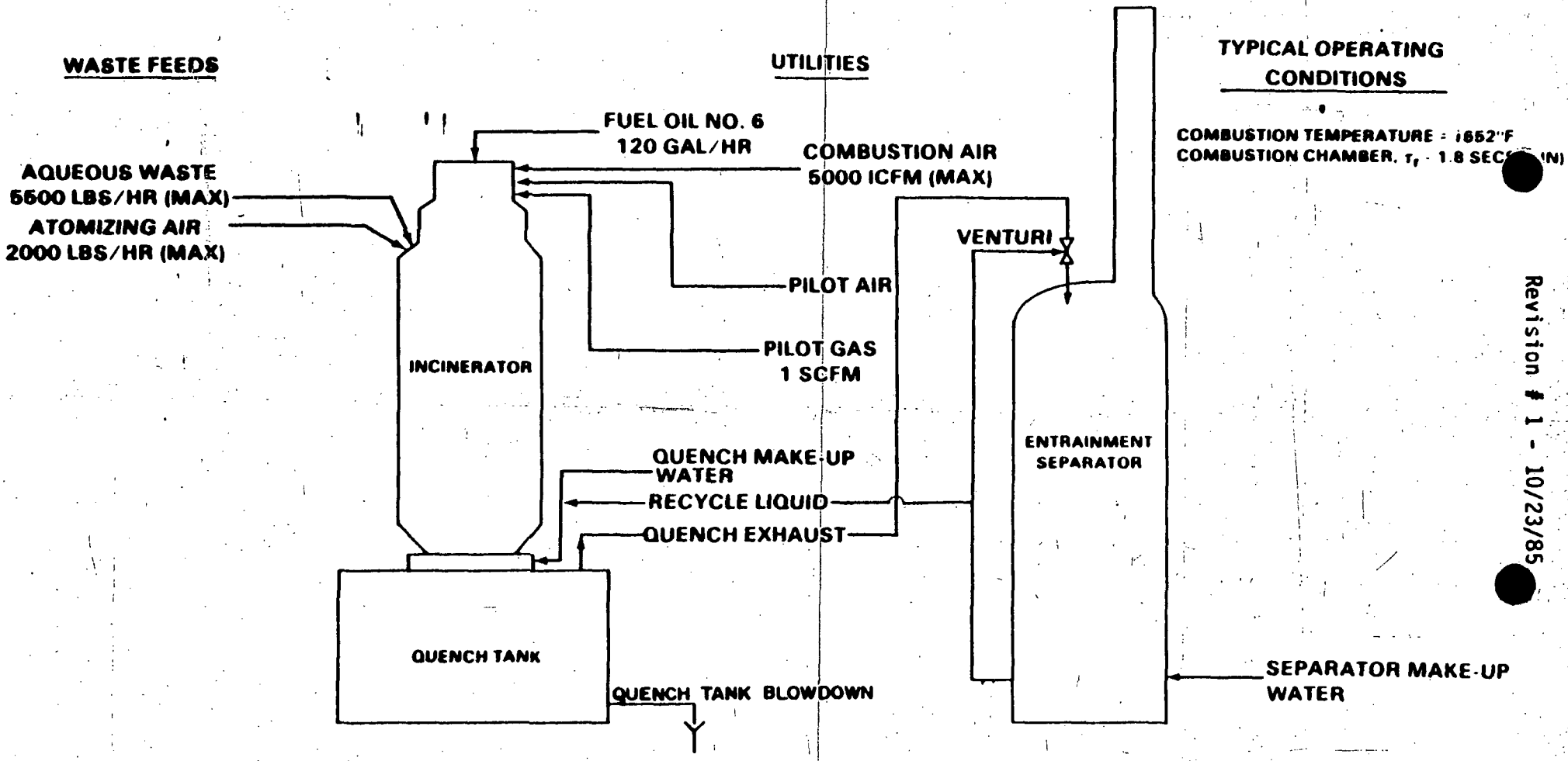

FIGURE 4-2A: PROCESS FLOW DIAGRAM FOR BADISCHE PWW INCINERATOR AND OFFGAS CLEANING SYSTEM

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recycled through the Venturi Scrubber, while some of it is routed to the Quench Tank, where a 5% salt solution is then bled off as a blowdown stream. Finally, clean gases exit the incinerator via the stack (approximately 55 feet above grade), leaving behind the inorganic salts in the entrainment separator section. The linear dimensions of the key components of the PWW Incinerator System are shown in Figure 4-2B.

General operating conditions for the incinerator, per its original design basis, are as follows:

• Controlled flame temperature	1700°C (20% excess air)
• Incineration temperature	900°C (1652°F)
• Combustion air blower	5000 ICFM @ 5.25 PSIG @ Max. inlet temp. 95°F (Min. 15°F) 200 HP
• Fuel oil (#6) maximum	2.0 GPM @ 100 PSIG
• Propane pilot gas	1 SCFM
• Aqueous waste maximum	Up to 5500 #/Hr. @ 100 PSIG & 70°F
• Atomizing air maximum	200 #/Hr @ 80 PSIG
• Make-up water	55 GPM @ 30 PSIG
• Downcomer cooling total flow a) Recirculation pump flow b) Make-up flow	75 GPM 45 GPM 30 GPM
• Scrubber recirculation pump flow a) Venturi wash flow b) Bleed to downcomer	180 GPM 150 GPM 30 GPM
• System bleed or blowdown	10 GPM

The designations and locations of the control scheme instrumentation for the PWW Incinerator are provided in Figure 4-2C.

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4.3.2.2 Descriptions of Key Components

This section contains descriptions of certain key components of the PWW Incinerator system, namely: its burner and oxidation chamber; gas downcomer; Sub-X Quench Tank; Venturi Scrubber; entrainment separator; and exhaust gas stack.

1) Oxidation Chamber and Burner

The Oxidation Chamber consists of a refractory-lined carbon steel shell.

As shown in Figure 4-2D, the Trane Thermal LV-18 Vortex Burner downfires into a secondary oxidation chamber (approx. 1100 ft^3) to supply heat for the oxidation of organics contained in the aqueous waste. The Vortex Burner utilizes low-sulfur No. 6 fuel oil (heating value of 147,000 BTU/gal), using air atomization. The pilot for the burner uses propane, and is needed only for incinerator system startup. The combustion process is self-sustaining, with the aid of No. 6 fuel oil and combustion air after startup. The feed waste is introduced, via four air-atomized injectors, into the oxidation chamber immediately downstream of the burner combustion chamber.

Excess air to the burner is controlled at 20% by a linked valve assembly. Both the firing rate of the burner, and the combustion air feed rate to the waste injectors, are controlled via split-range output from the temperature controller. Both parameters are varied to maintain an incinerator temperature of approximately 900°C (1652°F), and the 20% excess air rate. At each end of the temperature controller range, the waste feed rate is controlled to prevent the system from: 1) going fuel rich, if the heating value of the waste is high; or 2) dropping below an incineration temperature of 900°C, if the heating value of the waste is low. The overall heat release capacity of the incinerator is 24 X 10^6 BTU/hr, with about 17 X 10^6 BTU/hr coming from by the No. 6 fuel oil. The minimum residence time of the combustion gases in the incineration chamber is 1.8 seconds.

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2) Downcomer

The Downcomer is fabricated of 316L stainless steel to withstand the heat and corrosion of the flue gases and salts. The inside of the Downcomer is continuously washed with water, which is introduced at the top by a water box assembly. This wash, in addition to lowering the temperature of the downcomer, also limits salt buildup on the inside surfaces.

3) Sub-X Quench Tank

As the heat-release rate from the incinerator varies, the liquid level in the Quench Tank is maintained by a level controller located in the tank itself. The recirculation rate around the Quench Tank is maintained at approximately 50 GPM by the quench water recirculation pump. The bleed rate from the system is adjusted manually according to the salt concentration in the tank.

The Quench Tank is fabricated of carbon steel and lined with Kynar® for corrosion resistance. An impact block is located below the downcomer to protect the lining from large solid pieces of falling refractory or salt. The impact block has an area of approximately 45 in^2, and is constructed of acid-resistant brick. Materials of construction are as follows: ductwork - FRP resin; weir - 316L stainless steel; recirculation pumps, piping, and valves - 316 stainless steel.

4) Venturi Scrubber and Entrainment Separator

The Venturi Scrubber is designed with an automatic variable throat to adjust for changes in flue gas flow when the incinerator is operating at waste loadings which are either significantly higher or lower than design. The design pressure drop across the venturi throat is 70 in. H_2O.

The venturi recirculation pump draws water from the bottom of the separator tank at a continuous rate of approximately 150 GPM. Before the recirculation water enters the scrubber, some of it is bled off into the Quench Tank downcomer.

5) Exhaust Gas Stack

The stack is fabricated of FRP resin, and supported by structural steel. The stack has the sampling ports necessary to conduct compliance tests, and also has ports for continuous analyzers (an Oxygen/combustibles analyzer is currently installed). The structural steel provides access to the sampling ports.

4.3.3 Automatic Waste Feed Cutoff System

Both the fuel and feed waste to the burner and incinerator will be automatically shut off for the following:

1.	Flame failure	U.V. flame detection
2.	Low combustion air pressure	4.5 psig
3.	Low air flow	300 SCFM
4.	Low atomizing air pressure	60 psig
5.	Low fuel oil pressure	80 psig
6.	Low water flow; low liquid levels in either quench system or venturi	Various
7.	Low incinerator temperature	850°C (1562°F)
8.	High incinerator temperature	1010°C (1850°F)
9.	High stack gas temperature from Quench Tank	96°C (205°F)
10.	Low excess oxygen in stack gas	2 vol %
11.	High combustibles in stack gas	2 vol %
12.	High stack CO concentration	400 ppmv
13.	Low oil temperature	160°F
14.	High oil temperature	300°F
15.	Power failure	
16.	High PAA Distillates feed rate	1062 lbs/hr
17.	High DOP Lights feed rate	175 lbs/hr
18.	High MX Organics feed rate	275 lbs/hr

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The above set points for waste feed cutoff may be varied as necessary during incinerator startup, to obtain the most efficient operating conditions.

4.3.4 PWW Incinerator Permit Status

Badische has obtained an air permit from NJDEP for the operation of the PWW incinerator. This permit has NJDEP Certification Number 047839, and is provided in Attachment 4-2. Since this earlier permit was for the incinerator's original design service (i.e., plant wastes which are no longer generated), an amended operating permit will be required should this unit be re-commissioned by Badische.

4.4 PAA Incinerator Process Description

4.4.1 Introduction

The Badische hazardous waste incinerator was purchased in 1970 from John Zink Company, and was constructed in 1971. This customized unit cannot be identified by any specific model number; it is referenced by Badische as unit HS-103. This direct-fired liquid-injection system was designed and constructed for plant-specific combustion service at the Kearny facility. Its materials of construction, dimensions, and ancillary combustion equipment were selected to fit an exact set of desired operating conditions. John Zink has more hazardous-waste incinerators in service (approximately 75) than any other commercial U.S. vendor.

4.4.2 Engineering Description

The incinerator is cylindrical in shape and consists of a double-shelled, forced-draft combustor with a burner in one end, and a gas mixing chamber in the other. The combustion air enters the heater through the connection provided, and is split into two streams. One stream enters the burner as combustion air. The other stream is directed around the refractory-lined combustion chamber to provide an insulating layer between the two shells. The two air streams are rejoined in the gas mixing chamber, and pass out of the heater through the discharge nozzle.

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Supplementary fuel, either natural gas or fuel oil, is used to bring the incinerator unit to its design temperature before waste combustion begins, and to maintain this temperature. The combination burner and dual-fuel train enables Badische to fire the incinerator on either oil or natural gas. The combustion chamber is sized to ensure sufficient residence time for all dissociation and oxidation reactions to go to completion.

The basic shell of the incinerator unit is composed of carbon steel. The inside walls of the furnace area and stack are lined with pre-fired burner tile, with an inside diameter of 6.8 feet. The incinerator stack is 120 feet high, and the cross-sectional area of the combustion chamber is 37.12 ft^2. Other dimensions of the incinerator's various sections appear in Figure 4-3.

This incinerator utilizes a John Zink Series HI-30, combination dual-waste gun and fuel oil burner. This burner, in its present configuration, has a maximum heat release capacity of approximately 12,500,000 BTU/hr. Drawing B-0-515563-601 shows the design of the HI-30 burner. The waste and fuel oil gun tips act as nozzles to inject the liquid into the combustion flame region. The furnace is lit with a retractable electric ignitor, gas pilot. The pilot system is needed only for startup of the incinerator system. Once ignition is achieved, the combustion process is self-sustaining with the waste feed and/or supplemental fuel. Ignition of the pilot burners is semi-automatic (i.e., by an ignition pushbutton). The various feed configurations are shown in Figure 4-4. The PAA Distillates are injected into the burner via the DH-1 gun; both the DOP lights and the MX Organics are injected into the burner via the SA-765 gun.

The primary fuel used for the incinerator is No. 6 fuel oil (low-sulfur), with an approximate heating value of 147,000 BTU/gal. The maximum firing rate of 21×10^6 BTU/hr requires 2.4 GPM of fuel oil. Under normal service, the incoming waste has sufficient heating value so that the typical fuel oil usage is reduced to 0.7-0.8 GPM.

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Combustion air is provided by a Buffalo Forge 45 MW forced-draft blower. The blower has a capacity of 6600 ft^3/min., and a 30.6 brake horsepower (BHP) rating. To enhance overall combustion efficiency, the various waste feeds are atomized; steam is used for the PAA Distillate, and air is used for both the DOP Lights and the MX Organics.

The designations and locations of the primary flow and pressure instrumentation and control devices are provided in Figure 4-4. The levels of combustibles and oxygen in the stack exhaust gas are determined by an on-line Oxygen/combustibles analyzer installed near the stack sampling ports, at a level of approximately 30 feet (see Figure 4-3). The flow rate of combustion air is also continuously monitored. There are no air pollution control devices (i.e., an off-gas scrubber) for the exhaust gas from the incinerator. Off gases are discharged to the atmosphere through the 3.5-foot diameter stack at a nominal height of 120 feet.

4.4.3 Automatic Waste Feed Cutoff System

Incinerator shutdown and alarm occurs in the No. 6 fuel oil mode for the following:

1.	High stack temperature	2000°F
2.	Low combustion air pressure	2 in. H_2O (gauge)
3.	Low atomizing steam pressure	125 psig
4.	Low oil pressure	50 psig
5.	Low oil temperature	175°F
6.	High oil temperature	275°F
7.	Flame failure	U.V. flame detection
8.	Power failure	
9.	High stack CO concentration	400 ppmv
10.	Low stack O_2 concentration	2 vol %
11.	High PAA Distillates feed rate	1062 lbs/hr
12.	High DOP Lights feed rate	275 lbs/hr
13.	High MX Organics feed rate	275 lbs/hr

Incinerator shutdown and alarm occurs in the natural gas fuel mode for all of the above parameters (except 4, 5, and 6), plus the following:

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1. High fuel gas pressure 30 psig
2. Low fuel gas pressure 10 psig

Partial shutdown and alarms occur for the following:

1. At 950°C (1742°F) - De-energizes organic waste feed solenoid for the control valve. This constitutes a low-temperature situation when organic wastes are being incinerated.

2. At 750°C (1382°F) - De-energizes aqueous feed solenoid for the control valve. This constitutes a low-temperature situation when Scrubber Water alone is being incinerated.

3. At 595°C (1103°F) - Low stack temperature alarm.

Emergency shutdown procedures are provided in Attachment 4-1.

4.4.4 Permit Status

Badische has obtained an air permit from NJDEP for the operation of the PAA incinerator. This permit has NJDEP Certification Number 4457, and is provided as Attachment 4-2.

4.5 PAA Incinerator Trial Burn Plan 7:26-10.7, 12.2(f)4., and 12.9(b)

4.5.1 Types and Quantities of Wastes to be Incinerated

The Badische waste incinerator thermally oxidizes a continuous aqueous feed, referred to as Scrubber Water. The Badische/Kearny Plant manufacturers phthalic anhydride from o-xylene feed stock via the BASF technology. This technology employs switch condensers to recover the product phthalic anhydride from the BASF process. The spent process vent gas is then sent to a proprietary co-current wet scrubber for cleanup prior to discharge. The off-gas scrubbing process produces nominally 6100 lbs/hr of blowdown Scrubber Water. This material, although not itself a hazardous waste, is continuously fed to the hazardous waste incinerator for treatment. It can be characterized as an organic acid/water solution; additional characterization is provided in Table 4-1.

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TABLE 4-1 CHEMICAL MAKEUP AND PROPERTIES OF BADISCHE INCINERATOR FEEDSTREAMS

Feedstream Name	Nominal Feed Rate	Chemical Composition	Other Physical Properties
Scrubber Water	6100 lbs/hr Continuous	Benzoic Acid 0.5-1.5% Maleic Acid 10-25% Phthalic Acid 2.5-6% Citraconic Acid 0.5-2.0% Water & NH_3 65-87%	Aqueous Stream (Non-Hazardous) Temp. 40-45°C (liq) Sp. Gr. 1.10-1.15 pH 3-5 Viscosity 1.0 cp @50°C Total Solids 22-35%
PAA Distillates	850 lbs/hr Intermittent	Phthalic Anhydride 60-80% Maleic Anhydride 5-10% Trimellitic Acid 10-15% Benzoic Acid 5-10% Fumaric Acid 1%	Organic Waste Stream Temp 135°C (liq) Sp. Gr. 1.1-1.2 Flash Point None Heating Value 10,000 BTU/lb
DOP Lights	220 lbs/hr Intermittent	2-Ethyl Hexenes 75-80% 2-Ethyl Hexanol 5-15% 2-Ethyl Hexanal 1-2% n-Butanol 2% Bis (2-Ethylhexyl) Phthalate - Balance	Organic Waste Stream Temp. 20-40°C Sp. Gr. 0.73-0.76 Viscosity 32 SSU @ 100°F Flash Point 26-48°C Heating Value 15-18 MBTU/lb
MX Organics	220 lbs/hr Intermittent	2-Ethyl Hexanol 20-30% n-Butanol 0-10% Isodecanol 10-20% Bis (2-Ethylhexyl) Phthalate 15-35% Di-n-butyl Phthalate 1-8% Phthalic Acid Esters, N.O.S. - Balance	Organic Waste Stream Temp. 20-40°C Viscosity 43 SSU @ 100°F Flash Point 120-220°F Heating Value 14-17 MBTU/lb

There are three hazardous waste feed streams sent to this incinerator for treatment. Characterizations of all three are provided in Table 4-1. The largest of these waste streams is referred to as PAA Distillates. This stream consists of a combination of distillation residues and light ends from the purification of phthalic anhydride. It is a combination of two listed waste streams, referred to as K093 and K094, as defined Section 3.0 of this permit application. The PAA Distillate stream must be kept at approximately 275°F (135°C) for it to remain in a liquid state for transport to the incinerator. This is an intermittent feed stream, which is burned at a rate of approximately 60,000 lbs/month.

The second hazardous waste feed stream to the incinerator is referred to as DOP Lights. The manufacture of DOP (i.e., bis (2-ethylhexyl) phthalate) includes several purification steps. One of these steps produces a "light" fraction, which consists primarily of mixed alkenes, aldehydes, alcohols, and phthalate esters. This stream: has a flash point in the range of 78-118°F (26-48°C); exists in liquid form; and has a density less than that of water. This is an intermittent feed stream, which is burned at a rate of approximately 220 lbs./hr.

The third waste stream fed to this incinerator is referred to as MX Organics. The manufacture of various plasticizers includes several purification steps. The impure fractions from these steps are combined into one stream, which is normally recycled through the manufacturing process to produce an "off spec." product. However, due to capacity limitations, some of this material may be incinerated for its fuel value. This stream: has a flash point in the range of 120-220°F (49-104°C); exists in liquid form; and consists of mixed alcohols and phthalate esters. It has a nominal flow into the incinerator of 220 lbs/hr, and is treated on an intermittent basis.

More details on each of the above hazardous waste feed streams can be found in Section 3.0 (Waste Characteristics and Waste Analysis Plan). Figure 4-5 is a process flow diagram showing the various feed streams into the Badische waste

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incinerator. Also shown on this diagram are the utilities which are used to support its operation. Typical operating conditions for the incineration of these wastes are also provided in this figure. Table 4-1 provides details as to the chemical composition and the physical characteristics of both the scrubber water and the three hazardous waste feed streams to the incinerator.

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Current plans are for all three waste streams to the incinerator to be combusted separately. Badische will maintain the option of burning any one of the three waste streams concurrently with the scrubber water at any given time. With this arrangement, Badische has confidence in the incinerator's ability to burn any of the three hazardous waste streams at a destruction/removal efficiency (DRE) of at least 99.99% at a combustion temperature of 1800°F, and a residence time in the combustion chamber of approximately 1.5 seconds. By staggering the individual waste feeds to the incinerator, proper specification and maintenance of the operating conditions can lead to efficient waste destruction of all three hazardous streams.

4.5.2 Trial Burn - Sampling and Analysis Plan

4.5.2.1 Waste Analysis and POHC Selection

As part of the trial burn plan, Badische must submit a characterization of each hazardous waste treated in the incinerator. These characterizations must describe the chemical and physical nature of the subject hazardous wastes, and must include:

- A general waste description, including heating value and viscosity; also chloride and ash content (if applicable).
- Its hazardous characteristic(s) (corrosive, toxic, etc.).
- Concentrations of N.J.A.C. 7:26-8.16 hazardous constituents expected to be present.

Throughout normal operation of the incinerator system, Badische will conduct sufficient waste analyses to verify that the waste feed is within the physical and chemical composition limits to be specified in the RCRA Part B Permit. Section 3.0 of this permit application contains initial waste characterizations which will be used by Badische in developing the descriptions of these wastes for review during conduct of the trial burn.

One or more Principal Organic Hazardous Constituents (POHCs) will be selected by NJDEP and specified in Badische's permit, from among those constituents listed in

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5.6 Preventive Procedures, Structures, and Equipment 7:26-12.2(e)10

5.6.1 Loading/Unloading Operations

Hazardous waste loading/unloading operations take place as drums of waste are transferred to the container storage unit, and as drums are being loaded for offsite shipment.

Drums of hazardous waste are transported to the container storage unit on pallets by experienced forklift drivers (i.e., Miscellaneous Utility Workers).

Ramps have been designed and constructed to facilitate smooth and accessible movement of personnel and forklifts into and out of the container storage unit. Aisle space of 2 feet is maintained to allow the forklift easy access to the drums.

The use of appropriate equipment, easy access via ramps, and experienced personnel minimize the possibility of a spill during container loading/unloading. In the event a spill does occur, the material will be contained with sand bags, standard industrial absorbents, absorbent booms and pads, or dirt. Section 6.5.3 of the Contingency Plan provides specific emergency procedures. All contaminated materials will be removed and containerized for shipment to an offsite permitted hazardous waste facility. Affected areas and equipment will be decontaminated.

Any spills occurring outside the container storage area during loading/unloading operations will be contained and cleaned up, and the waste materials will be properly disposed as described previously.

5.6.2 Prevention of Runoff

The container storage unit consist of a concrete pad with a 4-inch dike around the perimeter. The pad is sloped toward a 26-gallon sump. Drawing CC-1002 gives the complete design specifications of this unit. Any spills which might occur will drain to the sump area where they would be contained. The sump area is routinely checked to guard against excessive buildup of water from rainfall. Also, any spills

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which occur are cleaned up immediately. The operation and design of the unit minimizes the possibility of contaminated runoff.

Runoff from the incinerator units, associated equipment, and the surrounding area goes to the stormwater system. All stormwater manholes flow to an onsite wastewater treatment plant. This system increases Badische's capability to prevent contaminated runoff from leaving the plant site in the event of a large spill/release, since it has adequate capacity to store/treat both stormwater runoff and any foreseeable spill(s) of hazardous wastes. Any wastes which may spill as a result of a ruptured pipe or leaking valve, are cleaned up immediately.

5.6.3 Water Supplies

Groundwater and surface water contamination is prevented by eliminating the discharge of hazardous substances onto the unprotected ground. The container storage unit is constructed of a concrete base sloped to a sump area to contain any spills. The likelihood of spills/releases at either of the incinerators is minimal. Any noncontained spill/release that occurs would enter the onsite wastewater treatment plant for treatment prior to release. The Contingency Plan (Section 6.0) gives detailed procedures for handling spills/releases.

5.6.4 Equipment Failure and Power Outages

In the event of a brief power interruption, emergency generators will be started to maintain critical operations, and the emergency lighting system will activate automatically to supply lighting to facility buildings. If there is a prolonged power outage, the waste feed lines to the incinerators will be manually shut off and all plant operations will be shut down. After shutdown, maintenance personnel will check for malfunctions and equipment failures.

5.6.5 Personnel Protection

A listing and description of personal protective equipment available at the plant site is provided in Section 6.8.3. All personal protection/safety equipment is routinely inspected as outlined in the inspection schedule shown in Table 5-1.

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TABLE I

SUMMARY OF WASTE STREAMS BADISCHE CORPORATION
KEARNY, NJ

RCRA PART A LINE NO.	SHORT DESCRIPTION	DESCRIPTION OF PROCESS GENERATING WASTE	EST. MAX. MONTHLY VOLUME	EST. ANNUAL VOLUME	EP TOXICITY (1)	IGNITABILITY (2)	CORROSIVITY (3)	REACTIVITY (4)	CONSTITUENTS (5)	ETC LAB I.D. NO.
1 & 2	Pretreatment Plant feed.	Combination of storm water, and process wastewaters from the manufacture of phthalate, adipate, and trimellitate esters.	8.5×10^6 gal.	77×10^6 gal.	Negative	Negative	Negative	Negative	Phathalic acid esters N.O.S 40 PPM	E6316
6	Pretreatment plant carbon sludge	Activated carbon treatment of process wastewater and stornwater.	175,000 lbs	1.08×10^6 lbs.	Negative	Negative	Negative	Negative	Phthalic acid esters N.O.S. 14%	E6314
7	Funda Carbon	Activated carbon treatment of esters for color improvement	15,000 lbs	96,000 lbs.	Negative	Negative	Negative	Negative	Phthalic acid esters N.O.S. 17%	E6315
9	Scrubber Water	Tail gas scrubbing	3.7×10^6 lbs.	30×10^6 lbs.	Negative	Negative	Negative	Negative	Not applicable	E6318 E9505

(1) N.J.A.C. 7:26 - 8.12
(2) N.J.A.C. 7:26 - 8.9
(3) N.J.A.C. 7:26 - 8.10
(4) N.J.A.C. 7:26 - 8.11
(5) N.J.A.C. 7:26 - 8.16

HUDSON REGIONAL HEALTH COMMISSION

215 HARRISON AVENUE
HARRISON, NEW JERSEY 07029

(201) 485-7001 (201) 485-7002

LIGHT (LIGHTSIDE)

ORDER

BADISCHE

B.A.S.F.
50 Central Avenue
Kearny, N.J. 07032

Attn: J. Walenten,

WHEREAS: THE HUDSON REGIONAL HEALTH COMMISSION has determined by investigation and inspection made on July 3, 1986, that you did cause, suffer, allow, or permit black smoke to be emitted into the outdoor air from the P.A. incinerator located on premises known as B.A.S.F., 50 Central Ave., Kearny, N.J., 07032, this in violation of Section 3.1 of AN ORDINANCE ESTABLISHING AN AIR POLLUTION CONTROL CODE.

NOW THEREFORE, YOU ARE HEREBY ORDERED TO CEASE causing, suffering, allowing, or permitting the above mentioned in violation of said code.

Failure to comply with this order will result in court action.

Milton R. MacDonald
Milton R. MacDonald,
Chief Inspector

cc: Health Dept.
D.E.P.

Dated: July 8, 1986

Attachment C.

Apr.67

NEW JERSEY STATE DEPARTMENT OF HEALTH

NEW JERSEY AIR POLLUTION CONTROL CODE
FIELD RECORD OF VIOLATION

DATE MAR 3 1977 TIME AT SITE 1130 a.m. p.m. (from) 1245 a.m. p.m. (to)

STATE HEALTH DISTRICT NEWARK COUNTY HUDSON

Sec. A — PERSON IN VIOLATION

FULL BUSINESS NAME BASF WYANDOTTE CORP

MAILING ADDRESS 50 (No.) CENTRAL AVE (Street) KEARNY (Post Office) 07032 (Zip Code)

TYPE OF OWNERSHIP:	NAME OF OWNER, PARTNERS, OFFICERS, OFFICIALS	TITLE
INDIVIDUAL		
PARTNERSHIP	W. H. GLICK	V.P.-Administration
CORPORATION ✓		
MUNICIPAL (type)	RICHARD TOMA	PLT MGR

PERSONS INTERVIEWED DICK TOMA PLT MGR DAVE COLE MFG. MGR.

PERSON AUTHORIZED TO RECEIVE PROCESSES CORPORATION TRUST CO. (Name)

MAILING ADDRESS 15 (No.) EXCHANGE PLACE (Street) JERSEY CITY (Post Office) 07304 (Zip Code)

REMARKS:

Sec. B — LOCATION OF VIOLATION

LOCATION ADDRESS 50 (No.) CENTRAL AVE (Street) KEARNY (Municipality) 07032

(Show details on reverse side) Book Plate ____ Lot 1,2,3,3R Block 288

Premises occupied as: Owner ✓ Lessee ____ Tenant ____

Owner BASF WYANDOTTE CORP. (Name) 100 (No.) Cherry Hill Rd (Street) PARSIPPANY (City) N.J. 07054

Sec. C — DETAILS OF VIOLATION

CODE REFERENCE TITLE 7 Chapter(s) 27 Section(s) 6.2 Paragraph(s) (b)

DETAILS

Company permitted particles to be emitted into the outside air from the phthalic anhydride plant scrubber stack (P 9770, CP 8006). The shade or appearance of the plume, exclusive of water vapor, was in excess of 20% for more than three minutes in a 30 minute period.

REMARKS

RECOMMENDED ACTION Order

Richard W Castle (Signed)
Sr. Environmental Specialist (Title)

I.D. # 10081

(OVER)

BSS
3-28-77

Batch Plasticizer Plant

BASF WYANDOTTE CORPORATION

Kearny Works

TABLE 3

ID No.	BWC Item No.	Equipment	NJDEP Cert. No.	Exp. Date	VOS
BP-1	TK-101	Butanol Storage Tank	45109	Dec. 81	YES
BP-2	TK-103	Isodecanol Storage Tank	45110	Dec. 81	*NO
BP-3	TK-104	6-10 Alcohol Storage Tank	45111	Dec. 81	*NO
BP-4	TK-120	6-10 Phthalate Storage Tank	45112	Dec. 81	NO
BP-5	TK-121	DBP Storage Tank	45113	Dec. 81	NO
BP-6	TK-122	DIOP Storage Tank	45114	Dec. 81	NO
BP-7	TK-123	DOA Storage Tank	45115	Dec. 81	NO
BP-8	TK-124	BOP Storage Tank	45116	Dec. 81	NO
BP-9	TK-125	Trimellitate Storage Tank	45117	Dec. 81	NO
BP-10	TK-126	Ester Mix Tank	45118	Dec. 81	NO
BP-11	D-203	PA Day Tank	45119	Dec. 81	NO
BP-12	D-303	Water Hold Drum	45120	Dec. 81	YES
BP-13	D-305	Alcohol Hold Drum	45121	Dec. 81	YES
BP-14	D-306A	Phthalate/Alcohol Hold Drum	45122	Dec. 81	*NO
BP-15	D-306C	DIOP Alcohol Hold Drum	45123	Dec. 81	YES
BP-16	D-306D	DOA Alcohol Hold Drum	45124	Dec. 81	YES
BP-17	D-307A	BOP Alcohol Hold Drum	45125	Dec. 81	YES
BP-18	D-307B	DBP Alcohol Hold Drum	45126	Dec. 81	YES
BP-19	D-307C	Trimellitate Alcohol Hold Drum	45127	Dec. 81	YES
BP-20	D-312	Ester Water Separator	45128	Dec. 81	NO
BP-21	D-320	Filtrate Hold Drum	45129	Dec. 81	NO
BP-23	D-328	Alkaline Wash Drum	45131	Dec. 81	YES
BP-24	D-433	Lights Separator Drum	45132	Dec. 81	YES
BP-25	S-201	Adipic Acid Silo	45133	Dec. 81	NO
BP-26	H-202	Trimellitic Anhydride Hopper	45134	Dec. 81	NO
BP-27	J-301	Vacuum Jet System	45135	Dec. 81	YES

*Permit Applications state these sources emit VOS. Vapor pressures on these applications are incorrect and have been corrected on Table 6.

ADG 4/1/81

ID No.	BWC Item No.	Equipment	NJDEP Cert. No.	Exp. Date	VOS
BP-28	CY-320	Product Separator	45136	Dec. 81	NO
BP-29	R-301	Esterfication Reactor	45137	Dec. 81	YES
BP-30	R-330	Washer/Stripper Reactor	45138	Dec. 81	YES
BP-31	FH-430	Hot Oil Heater	45670	Dec. 81	NO
BP-101	Y-901	Liquid Waste Incinerator	47839	Nov. 81	NO
BP-102	TK-901	Organic Storage Tank	47841	Nov. 81	YES
BP-103	TK-902	Organic Storage Tank	47840	Nov. 81	YES

ADG 4/1/81

Phthalic Anhydride Plant

BASF WYANDOTTE CORPORATION

Kearny Works

TABLE 1

ID No.	BWC Item No.	Equipment	NJDEP Cert. No.	Exp. Date	VOS
PA-11	MF-712	PA Storage Tank	4328	July 82	NO
PA-12	MF-501	No. 6 Fuel Oil Tank	4335	July 82	NO
PA-13	MF-502	Orthoxylene Tank	~~3861~~ 4351	7-7-82	NO ?
PA-14		PAA Incinerator	4457	January 85	NO
PA-15	MF-108A	Crude Tank	5416	April 82	NO
PA-16	MF-108B	Crude Tank	5417	April 82	NO
PA-17		WW Seal Tank	5421	April 82	NO
PA-18	MS-141	Ammonia Storage Tank	7795	April 83	NO
PA-19	MS-107	Tail Gas Scrubber	8006	January 83	NO Hydro Carbon Xylene 18 #/hr
PA-20	MS-207A	Storage Tank	31433	July 82	NO
PA-21	MS-207B	Storage Tank	31434	July 82	NO
PA-22	MF-503	Storage Tank	31435	July 82	NO
PA-23	MF-504	Storage Tank	31436	July 82	NO
PA-24	MF-505	Storage Tank	31437	July 82	NO

ADG 4/1/81

Dioctyl Phthalate Plant

BASF WYANDOTTE CORPORATION

Kearny Works

TABLE 2

ID No.	BWC Item No.	Equipment	NJDEP Cert. No.	Exp. Date	VOS
DOP-11	MF-713	Decanol Storage Tank	4327	July 82	NO
DOP-12	MF-706	DOP Day Tank	4329	July 82	NO
DOP-13	MF-707	DOP Day Tank	4330	July 82	NO
DOP-14	MF-512	DOP Storage Tank	4331	July 82	NO
DOP-15	MF-508	2EH Storage Tank	4332	July 82	NO
DOP-16	MF-506	DOP Day Tank	4333	July 82	NO
DOP-17	MF-507	DOP Day Tank	4334	July 82	NO
DOP-18	MS-714A	Waste Org. Tank	4336	July 82	NO
DOP-19	MS-714B	Waste Org. Tank	4337	July 82	NO
DOP-20	MS-311	2EH Sep. Tank	4338	July 82	NO
DOP-21	MS-318	DOP Sep. Vessel	4339	July 82	NO
DOP-22	MR-321	DOP Mix Vessel	4340	July 82	NO
DOP-23	MR-372	DOP Mix Vessel	4341	July 82	NO
DOP-24	MS-333	DOP Separt. Vessel	4342	July 82	NO
DOP-25	GF-349	Funda Filter	4343	July 82	NO
DOP-26	GF-350	Funda Filter	4344	July 82	NO
DOP-27	MS-361,2	Separating Vessels	4347	July 82	NO
DOP-28	MM-2	Seal Pot	4348	July 82	NO
DOP-29	MR-350	Carbon Mix TK	4350	July 82	NO
DOP-30	MS-351	DOP Tank	4351	July 82	NO
DOP-101	MF-511B	Refined PA Tank	Note 1		NO
DOP-102	MF-513	DOP Day Tank	Note 1		NO
DOP-103	MF-715	2EH Storage Tank	Note 1		NO
DOP-104	PE-312	Condensing Jet	Note 1		NO
DOP-105	TK-903	DOP Liquid Waste Tank	Note 1		NO
DOP-106	HS-301	Hot Oil Heater	Note 1		NO

Note 1 - These applications were submitted to NJDEP on 6 March 1981.

ADG 4/1/81

Palanil Plant

BASF WYANDOTTE CORPORATION

Kearny Works

TABLE 4

ID No.	BWC Item No.	Equipment	NJDEP Cert. No.	Exp. Date	VOS
PL-11	D-2001	Spray Dryer	9322	Feb. 84	NO
PL-12	F-1017	Dust Scrubber	9323	Feb. 84	NO
PL-13	TK-3010	Waste Acid Tank	9324	Feb. 84	NO
PL-14	T-3012	Solvent Storage Tank	9325	Feb. 84	YES
PL-15	PK-3001	Storage Tank Scrubber	9326	Feb. 84	NO
PL-16	F-1018	Fume Scrubber	9327	Feb. 84	NO
PL-17	R-1004	Bromine Scrubbing System	19677	Dec. 85	NO
PL-18	RX-1004	PA Scrubbing System	19678	Mar. 86	NO
PL-19		Filter Press 1	20248	Mar. 86	NO
PL-20		Filter Press 2	20249	Mar. 86	NO
PL-21		Filter Press 3	20250	Mar. 86	NO
PL-22		Filter Press 4	20251	Mar. 86	NO
PL-23		Filter Press 5	20252	Mar. 86	NO ? Methanol
PL-24	T-3008	Methanol Tank	20414	Dec. 81	YES
PL-25		Warehouse Dump Station	20975	Dec. 85	NO

ADG 4/1/81

Miscellaneous Sources

BASF WYANDOTTE CORPORATION

Kearny Works

TABLE 5

ID No.	BWC Item No.	Equipment	NJDEP Cert. No.	Exp. Date	VOS
UT-11		Boiler	8103	May 83	NO
UT-12		Carbon Silo	21398	Dec. 81	NO
UT-13		WW Storage Tank	20413	Dec. 81	NO

ADG 4/1/81

Memo Region

6701A
CTH 5/24

Badische Corporation

50 Central Avenue
Kearny, New Jersey 07032

Badische

September 12, 1985

NJDEP - Water Resources
WQM - DMR
CN-029
Trenton, NJ 08625

Dear Sir/Madam:

Re: NJPDES Permit No. N.J. 0001112

There was a discharge of stormwater through Outfall 001 identified by the above referenced permit on Friday August 30, 1985. The discharge was a result of the intense rainfall.

The discharged stormwater was in excess of the following permitted values.

	Permit Limit	Discharge 8/30/85
BOD	50 mg/l	118 mg/l
DEHP	0.350 mg/l	32 mg/l
DBP	0.300 mg/l	33 mg/l

The volume of stormwater discharged was approximately 34,000 gals.

Respectively yours,

John R. Walenten
Environmental Administrator

:dd
cc: EPA Region II - Permits Admin.
New York, NY 10278

Telephone: 201-589-1600
TWX #710-995-4422

Attachment E

703

Badische Co. oration

Kurisko Enforcement Element

50 Central Avenue
Kearny, New Jersey 07032

RECEIVED
APR 29 1983
State of New Jersey
Dept. Environmental Protection
Division Water Resources

RECEIVED
MAY 6 2 54 PM '83
NJ DEPT ENV PROTECTION
DIV WATER RESOURCES
NS&E

April 12, 1983

RECEIVED
APR 12 1983
State of New Jersey
Dept. Environmental Protection
Division Water Resources

NJDEP-Water Resources
WQM-DWR
CN-029
Trenton, New Jersey 08625

Dear Sir or Madam:

Re: NJPDES Permit No. N.J. 0001112

There was a discharge of stormwater through Outfall 001 identified by the above referenced permit on Sunday, April 10, 1983. The discharge was a direct result of the intense rainfall, pH and TOC of the discharged stormwater were in excess of the permitted value.

	Permit Limit	Discharge 4/10/83
pH	6.0 - 9.0	4.0
TOC	100 mg/l	120 mg/l

A record rainfall of 4.3 inches was recorded on site, which washed down the entire process area and was probably responsible for the elevated TOC measurement; pH of the collected rainwater via rain gauge was 3.6. The flow meter monitoring the discharge did not operate but it is estimated that 100,000 gallons were discharged while 197,200 gallons were diverted to onsite pre-treatment. Work is underway to repair the flowmeter.

Respectfully yours,

Badische Corporation

A. G. Mueller
General Manager

/mc

cc: EPA Region II
Permits Administration Branch
Room 432
26 Federal Plaza
New York, New York 10278

Telephone: 201-589-1600

Badische Corporation
Member of the BASF Group

BASF

F

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION II
26 Federal Plaza
New York, New York 10278

In the Matter of Badische Corporation 50 Central Avenue Kearny, New Jersey 07032 NPDES PERMIT NO. NJ 0001112 Proceeding pursuant to §309(a) of the Clean Water Act, 33 U.S.C. §1319(a)	ORDER EPA-CWA-II-82-09

The following ORDER is issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency ("EPA") by the Clean Water Act, 33 U.S.C. §1251 et seq. ("the Act"), which authority has been duly delegated to the Regional Administrator of Region II, EPA, which authority has been duly delegated by the Regional Administrator of Region II to the Director, Enforcement Division, Region II.

FINDINGS

1. On September 28, 1979, the Director, Enforcement Division, pursuant to authority delegated to him by the Regional Administrator of Region II, EPA, pursuant to authority delegated to him by the Administrator, issued National Pollutant Discharge Elimination System Permit No. NJ 0001112 ("the permit") under section 402 of the Act, 33 U.S.C. §1342, to Badische Corporation ("the permittee") for the discharge of pollutants from its facility located at 50 Central Avenue, Kearny, New Jersey 07032 into the Passaic River, a water of the United States. By its terms, the permit became effective on November 30, 1979 and expires on November 30, 1983.

2. Condition A. Part 1, page 2 of the permit authorizes the permittee to discharge Total Organic Carbon and Petroleum Hydrocarbons not to exceed 100 and 15 mg/l respectively as a daily maximum.

3. Discharge Monitoring Report forms submitted by the permittee as required by Condition B.2 Part 1, page 4 of the permit for the period of time from March, 1980 to May, 1982 indicate that the daily maximum limitations for Total Organic Carbon and Petroleum Hydrocarbons authorized by Condition A. Part 1, page 2 of the permit has been exceeded and is summarized below:

E

REPORTING PERIOD	PARAMETER	PERMIT LIMIT mg/l	LEVEL REPORTED mg/l
03/01/82 to 05/31/82	TOC	100	151
	Pet. Hydrocarbons	15	24
06/01/81 to 08/30/80	TOC	100	120
09/01/80 to 11/30/80	TOC	100	273
06/01/80 to 08/31/80	TOC	100	213
	Pet. Hydrocarbons	15	66
03/01/80 to 05/31/80	TOC	100	258
	Pet. Hydrocarbons	15	20

4. Condition A. Part 1 implements section 301 of the Act.

5. The permittee is in violation of Condition A. Part 1 of the permit.

ORDERED PROVISIONS

WHEREFORE, in consideration of the above FINDINGS, taking into account the seriousness of the violation(s) and any good faith efforts to comply, the Director has determined that compliance with the following requirements is reasonable.

IT IS HEREBY ORDERED:

1. That immediately upon receipt of the duplicate copies of this ORDER, a corporate officer of Badische Corporation shall complete the acknowledgment of receipt on one of the originals of this ORDER and return said original to Mr. Charles E. Hoffmann, Attorney, Water Enforcement Branch, Enforcement Division, Room 437, 26 Federal Plaza, New York, New York 10278 in the enclosed envelope.

2. That within thirty (30) days of receipt of this ORDER the permittee shall submit a complete and definitive report on the cause of the violation of the discharge limitations for Total Organic Carbon and Petroleum Hydrocarbons. Said report is to include information as to the source (see number 3 below) of the Total Organic Carbon and Petroleum Hydrocarbons which is causing the violations of the discharge limitation, and proposed solutions to correct the problem, including the amount of time which will be required to implement the proposed solutions.

3. That within thirty (30) days of receipt of this ORDER, the permittee shall submit a complete listing of the components of the Total Organic Carbons in the discharge and locate the source of each in the plant contributing to the effluent discharge.

E

Badische Corporation

50 Central Avenue
Kearny, New Jersey 07032

August 25, 1982

U. S. Environmental Protection Agency
26 Federal Plaza - Room 432
New York, New York 10007

Attn: Permits Administration Branch

Dear Sir:

Re: NPDES Permit No. N.J. 0001112

There was a discharge of stormwater through Outfall 001 identified by the above referenced permit on Wednesday, August 25, 1982. The discharge was the direct result of an intense rainfall, pH of the discharged stormwater was in excess of permitted value.

	Permit Limit	Discharge
pH	6.0-9.0	5.7

Approximately 32,000 gallons were discharged to receiving waters during the peak storm intensity, while the remainder of the runoff was diverted to on-site pretreatment facilities.

The pH of a rainfall sample collected in a rain guage was measured at 3.8.

Respectfully yours,

BADISCHE CORPORATION

AGMueller/EGM

A. G. Mueller
General Manager

AGM:rs
cc: NPDEP

Telephone: 201-589-1600

E

9 inch Hackensack

Badische Corporation

50 Central Avenue
Kearny, New Jersey 07032

RECEIVED
APR 12 3 in PM '82
NJ DEP
DIV WATER RESOURCES
MS&E

April 8, 1982

RECEIVED
APR 13 1982
DEPT. ENVIRONMENTAL PROTECTION
NEWARK OFFICE

U. S. Environmental Protection Agency
26 Federal Plaza - Room 432
New York, New York 10007

Attn: Permits Administration Branch

Dear Sir:

Re: NJDES Permit No. N.J. 0001112

There was a discharge of stormwater through Outfall 001 identified by the above referenced permit on Saturday, April 3, 1982. The discharge was the direct result of an intense rainfall, and two parameters were in excess of permitted values.

	Permit Value	Discharge
TOC	100 mg/l	151 mg/l
Petrol. Hydro.	15 mg/l	24 mg/l

Approximately 6,000 gallons of stormwater were discharged to receiving waters during the peak storm intensity while the remainder of the runoff was diverted to on-site pretreatment facilities.

Respectfully yours,

BADISCHE CORPORATION

AGMueller/ebm

A. G. Mueller
General Manager

AGM:rs
cc: NJDEP

Telephone: 201-589-1600

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF
FISH, GAME AND WILDLIFE
RUSSELL A. COOKINGHAM
DIRECTOR

PLEASE REPLY TO:
CN 400
TRENTON, NEW JERSEY 08625

October 12, 1983

MEMORANDUM

TO: Ram Pyarilal, Industrial Permit Section
Division of Water Resources

FROM: Bill Andrews through Bruce Freeman
Bureau of Marine Fisheries, Division of Fish, Game & Wildlife

SUBJECT: NJPDES/DSW Draft Permit, ~~No. N.J.~~ 0001112 Badische Corp., Newark Bay

The Division of Fish, Game and Wildlife, Bureau of Marine Fisheries has reviewed the above subject Draft Permit for a discharge of untreated storm water from the applicant's organic chemical plant in Kearny, N.J. The discharge will occur during extraordinary storm events while all normal runoff will be collected and discharged into the municipal sanitary sewer system for treatment.

The applicant has submitted information showing chemical contamination of its discharge waters in the treatable range, C.O.D. 316 mg/l, T.O.C. 98 mg/l, Petroleum Hydrocarbons 14.4 mg/l and Bis (2-Ethyl-Hexyl) Phthalate 5 mg/l. These levels are of concern because of long-range sublethal or chronic effects these chemicals could have on the marine resources through bioaccumulation and secondly because of the existing degraded quality of water at the discharge site. Our studies show that dissolved oxygen at the confluence of the Passaic River and Newark Bay in the summer months is below 2 mg/l. This level is unsuitable for aquatic life.

It is our recommendation that the applicant first study and report on methods to eliminate chemical contamination of the storm waters at their plant. If this study concludes that contamination of these waters are unavoidable we recommend that the applicant store and pretreat the chemical waste for discharge to the municipal system and eliminate the subject discharge.

We further recommend that the Permit require bioassay and bioaccumulation testing of the proposed discharge. The tests should analyze for chemicals used and produced at the facility and designed inaccordance with methods published in the Federal Register by E.P.A.

Attachment F

Let's protect our earth

STATE OF NEW JERSEY
RTMENT OF ENVIRONMENTAL PROTE[illegible]N
CN 402
Trenton, N.J. 08625

PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to the further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit.

Permit No.	Issuance Date	Effective Date	Expiration Date
NJ0001112	May 11, 1984	June 15, 1984	March 14, 1989

Name and Address of Applicant	Location of Activity/Facility	Name and Address of Owner
Badische Corp. 50 Central Avenue Kearny, NJ 07032	50 Central Avenue Kearny, NJ 07032	Same as applicant

Issuing Division	Type of Permit	Statute(s)	Application No.
Water Resources	NJPDES/DSW Modification	N.J.S.A. 58:10A-1 et seq.	NJ0001112

This permit grants permission to:

discharge to the Newark Bay classified as TW-3 waters, in accordance with effluent limitations, monitoring requirements and other conditions as set forth in Parts I, II, III and IV of the existing NJPDES/DSW Permit NJ0005711, as modified by the attached Page 13, Part IV.

Approved by the Department of Environmental Protection
By the authority of:
John W. Gaston, Jr., P.E.
Director
Division of Water Resources

Arnold Schiffman, Administrator
Water Quality Management

5/11/84
DATE

* *The word permit means "approval, certification, registration, etc."*

(GENERAL CONDITIONS ARE ON THE REVERSE SIDE.)

Form DEP-007 (8/83)

Attachment G

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF AUTHORIZATION

PERMIT NO.	ISSUANCE DATE	EFFECTIVE DATE	EXPIRATION DATE
NJ0001112	May 11, 1984	June 15, 1984	March 14, 1989

ISSUED TO	FOR ACTIVITY/FACILITY AT	OWNER
Badische Corp. 50 Central Avenue Kearny, NJ 07032	50 Central Avenue Kearny, NJ 07032	Same as applicant

ISSUING DIVISION	TYPE OF PERMIT	STATUTE(S)	APPLICATION NO.
☒ Water Resources ☐ Coastal Resources ☐ Environmental Quality	NJPDES/DSW Modification	N.J.S.A. 58:10A-1 et seq.	NJ0001112

A PERMIT TO

discharge to the Newark Bay classified as TW-3 waters, in accordance with effluent limitations, monitoring requirements and other conditions as set forth in Parts I, II, III and IV of the existing NJPDES/DSW Permit NJ0005711, as modified by the attached Page 13, Part IV.

By the authority of:
John W. Gaston, Jr., P.E.
Director
Division of Water Resources

DEP AUTHORIZATION

Form DEP-008
7/80

THIS NOTICE MUST BE CONSPICUOUSLY DISPLAYED AT THE ACTIVITY/FACILITY SITE.

A.1 EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning 6/15/84 and lasting through 3-14-89
the permittee is authorized to discharge from outfall(s) serial number(s) 001

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kgs/day (lbs/day)		other units (specified)		Measurement (1) Frequency	Sample Type
	Avg. Monthly	Max. Daily	Avg. Monthly	Max. Daily		
Flow-m^3/Day (MGD)	N/A	N/A	N/A	N/A	Quarterly	6 Hour-Composite
Total Suspended Solids	N/A	N/A	30-45-50 mg/l (3)	N/A	Quarterly	6 Hour-Composite
BOD_5	N/A	N/A	30-45-50 mg/l	N/A	Quarterly	Grab
Petroleum Hydrocarbons	N/A	N/A	N/A	15 mg/l (2)	Quarterly	Grab
Total Organic Carbon	N/A	N/A	N/A	50 mg/l	Quarterly	Grab
Bis (2 Ethyl-Hexyl) Phthalate	N/A	N/A	N/A	0.350 mg/l	Quarterly	Grab
Di-N Butyl Phthalate	N/A	N/A	N/A	0.300 mg/l	Quarterly	Grab

(1) When ever discharge occurs

(2) None visible in the effluent

(3) 30-consecutive day, 7-consecutive day, 6-consecutive hour averages respectively.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitoring quarterly by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at the outfall of DSN 001.

Form ADM-012

MEMO

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO FILE DATE

FROM KENNETH CONROW, HSMS IV, BUREAU OF PLANNING AND ASSESSMENT

SUBJECT BASF CORPORATION, KEARNY, HUDSON COUNTY

The following conditions, noted during a RCRA walk through site inspection on March 6, 1987, are of environmental concern:

1. Darkly stained soil was observed in the vicinity of the rail car and tank truck transfer areas.

2. For a brief time black smoke was observed billowing from the PAA incinerator stack.

KC:mz

Attachment H